Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

October 13, 1958

FPVPC CONVENTION REPORT PAGE 7

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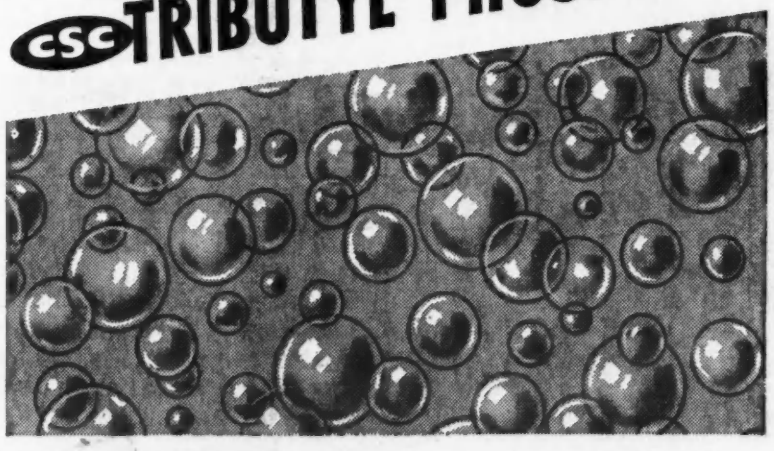

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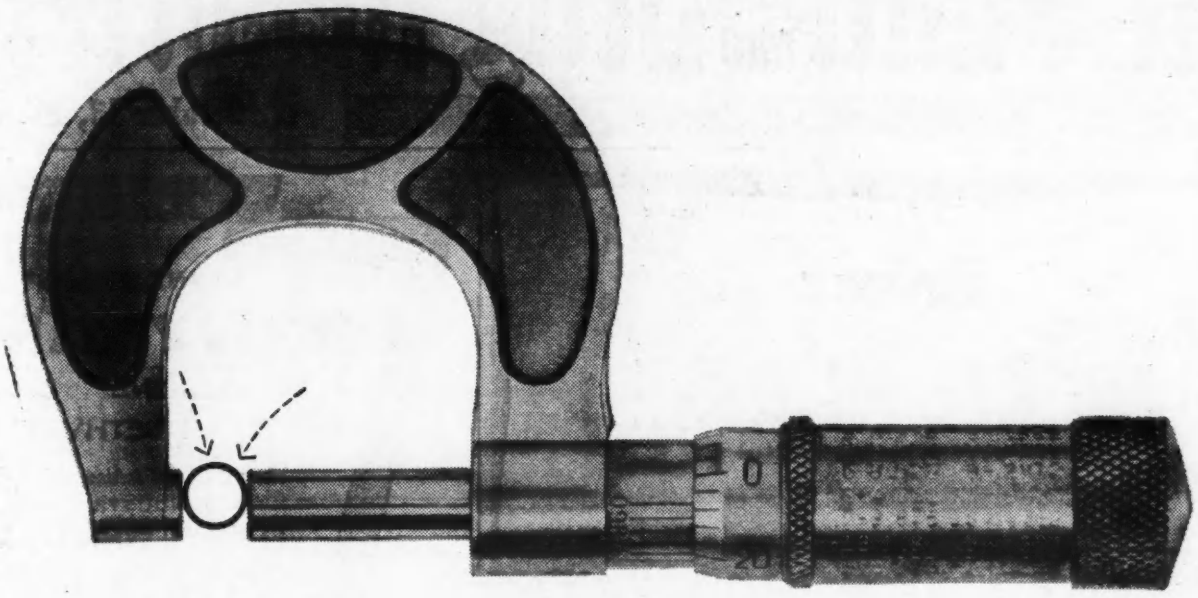

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Phillipsburg, New Jersey

Oil, Paint and Drug Reporter

Vol. 174 No. 16 30 Church St., New York 7, N. Y. October 13, 1958

Exports Show No Shift

August was about like July as far as chemical exports from the United States were concerned.

That's what the latest preliminary estimates of the Bureau of Census say, adding that the August figures ran below those of the previous year.

Exports for the month were estimated by the bureau to have a value of $109.8 million as compared with the July value of $109.4 million and the August, 1957 value of $119 million. For the first eight months of this year exports totaled $907.5 million against $958.3 million in the same period last year.

The trend in exports of chemicals and allied products between July and August did not differ materially from that of all merchandise. The bureau reported that exports of all merchandise reached a value of $1,395.9 million or about 2 percent below the $1,419 million reported for July and about 17 percent below the August, 1957 total of $1,677.3 million.

During the first eight months of 1959 total exports, including military shipments, were valued at $11,803.9 million, about 17 percent less than the $14,273.7 million reported for the corresponding period of 1957.

Excluding military shipments, exports for this period were $10,887.3 million, or about 18 percent below the $13,277.8 million reported for the first eight months of 1957.

The slight decline in total exports between July and August resulted from substantial decreases in exports of machinery and vehicles and textile fibers and manufacturers being largely off-set by gains in exports of the nine remaining commodity groups.

Exports of machinery and vehicles dropped from $546.6 million to $483.8 million as noticeable decreases occurred in exports of cars and trucks and special category commodities.

Reflecting a sizable drop in shipments of unmanufactured cotton, the textiles fibers and manufacturers group fell from $106.2 million to $77.2 million.

Additives Industry Committee Will Have Nomenclature Plan Shaped Up Within Six Weeks

Taking their cue from the Commissioner of Food and Drugs, who feels that a simple system should be devised for naming chemicals that go into food, the chemical and food industries are losing no time in coming to grips with the problem. A seven-man committee is about to start on that job. In fact, it hopes to have a nomenclature plan whipped into shape by November 24 when a food additives conference, sponsored jointly by Food and Drug Administration and the Food Law Institute, gets under way in Washington.

Moving spirit of the two-day parley, which will deal with administrative and scientific questions growing out of the new food additives law, is Charles Wesley Dunn, noted food and drug lawyer.

As additives nomenclature is expected to figure prominently in the Washington discussions, the names task group expects to come up with something concrete on that subject within the next six weeks.

Make-Up of Names Committee

The committee, only just organized by Dr. Bernard L. Oser of Food & Drug Research Laboratories, Inc., Maspeth, L. I., includes representatives from the food, chemical and drug fields.

Among those known to be members of the group are Dr. O. Lee Kline, director of research in FDA's division of nutrition; Dr. Lloyd Miller of the United States Pharmacopeia; an official of the American Chemical Society, and a patent and trademark attorney.

As Dr. Oser sees it, the committee's mission is to evaluate the entire problem and to work out a simple method of how best to inform the public on what ingredients are in food.

Thus, he feels that the group may well have to go beyond the mere matter of names. For instance, he points out that use of calcium propionate, a mold inhibitor in bread, must now be stated on the label.

Dr. Oser thinks this not only "does not inform the public," but instead, he con-

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F. W. MacMullen

Stauffer, E. Merck Set Up Drug Firm

Stauffer Chemical Company, New York, and E. Merck AG, Darmstadt, Germany, have embarked on a new venture — Stauffer Pharmaceuticals, Inc.—which will manufacture bulk quantities of several pharmaceuticals and fine chemicals in the E. Merck line and market them in the United States and Canada.

F. W. MacMullen, of Stauffer, has been named president of the new company. Headquarters will be in New York. The firm is expected to go into production early in 1959.

Stauffer Pharmaceuticals represents a logical combination of E. Merck's research

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Pyrethrum Market Is Growing As Other Bug-Sprays Are Curbed

As the government continues tightening its rules on insecticides and as the scientists go on discovering more and more limitations among the currently accepted bug-sprays, the pyrethrum people sit back and watch their market grow. For they find that every added restriction is likely to mean a new field opening up for economic poisons made from the flower that blooms in Africa, the Orient and South America. Since pyrethrum-based insecticides and repellents have the peculiar quality of being non-toxic to warm-blooded life, they can always find a welcome in the use-areas in which others are taboo.

COLUMBIAN CARBON MANAGER: C. O. Davidson, appointed general sales manager of its carbon black and pigment division by Columbian Carbon Company, New York.

That is the marketing picture just ahead as Carroll A. Clark, vice-president and general manager of McLaughlin Gormley King Company, sees it.

One lone statement from Mr. Clark seems to put the whole picture in focus: "McLaughlin Gormley King Company sold more pyrethrins in the last twelve months than in any previous twelve months period."

OPD Seeks the Picture

The comments of the Minneapolis, Minn., executive came in an interview conducted by OPD to obtain a clear picture of conditions in this changing pesticide market.

OPD's first question was "Can you point out the new areas in which pyrethrum is finding a market?"

Mr. Clark replied:

"Rather than finding places in new areas, pyrethrum has been used in recent years in the same areas as heretofore, but in more specific ways in formulations designed for exact jobs and in areas more particularly defined than they used to be by reason of definite limitations of competing materials.

"For example, many otherwise excellent insecticides cannot be used around foodstuffs or on foods after harvest, but nevertheless these are areas in which

—Continued on page 70

Barium Chloride Relief Rejected by Tariff Body

The Tariff Commission late last week refused to recommend any relief for the domestic barium chloride industry in a report to the President on its escape clause investigation of imports.

Although representatives of the two remaining producers told the commission at hearings last July (OPD, 7/21/58) that they may have to abandon their businesses if imports are not curtailed, the commission rejected the argument that such imports are the basis of the industry's problems.

Duties on barium chloride were reduced in 1951 to its current rate of 1-3/5 cents a pound from its statutory level of 2 cents a pound. The commission found that imports were not of such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry.

AAC Is Buying Control Of Knoxville Fertilizer Co.

American Agricultural Chemical Company, New York, has contracted to purchase most of the physical assets of Knoxville Fertilizer Company with plants at Knoxville, Nashville and Johnson City, Tenn., and London, Ky.

The plants will be operated as the Knoxville Fertilizer Division under the management of the present Knoxville Fertilizer personnel. The line of "Knox" fertilizers will continue to be sold.

Hercules' New Plant Making Quantity Urea

Hercules Powder Company, Wilmington, Del., is now producing urea on a commercial scale at its newly-completed 20,000-ton-a-year installation located at Hercules, Calif.

R. W. Crabtree, manager of chemical sales for the explosives department, which operates the plant, said that 75 percent of the new plant's production will be for agricultural use.

Plant officials added that through the utilization of a new process the unit is

—Continued on page 42

Antihistamine Output Set

Warner-Lambert Pharmaceutical Company, Morris Plains, N. J., is preparing to manufacture "Anahist" and "Superanahist" at its plants at Lititz, Pa., and St. Louis, Mo. Both products have been handled by outside contractors in the past.

Pfizer Buys Into UK Concern

Pfizer, Ltd., an English unit of Chas. Pfizer & Co., Brooklyn, N.Y., has acquired most of the outstanding shares of Kemball, Bishop & Co., London, for a sum of about $8,120,000 (£2,900,000).

Mich. Chemical Settles Seventeen-Day Strike

The seventeen-day strike against Michigan Chemical Corporation's Saint Louis and Manistee, Mich., plants has been ended through the acceptance by Local No. 11-224 of the Oil, Chemical & Atomic Workers International Union (OCAW-CIO) of the company's terms covering a new three-year contract.

With economic issues practically agreed upon in earlier negotiations, the final point in controversy was the addition of a clause in the contract reaffirming management's right to improve operating conditions.

Lead-Zinc Quota Program Under a Legal Cloud

A cloud of doubtful legality is hovering over the lead and zinc import quota program, which the government put into operation October 1. It flows from a wholly unrelated Customs Court case decided early last week, questioning the President's authority to modify recommendations of the Tariff Commission in escape clause cases.

Government officials have been unable to fully assess the possible damages to the administration's trade and tariff policies if the decision stands unchanged, but they make no secret of the fact that they are greatly concerned.

Adding to the dramatics of the situation, officials let it be known immediately that the decision would be appealed. Ordinarily these decisions do not come for several weeks.

A policy that has been followed by the White House in a number of escape clause cases of trying to appease both the protectionists and free traders by "compromising" the majority decisions of the Tariff Commission came an apparent cropper when a group of bicycle importers took the President's proclamation of August 18, 1955, to court. The proclamation increased the duties on bicycles.

The three-man Customs Court which heard the case agreed unanimously that the President had exceeded the authority conferred by congress in the trade agreements law and ruled that his proclamation was invalid. The court held that the case had been delayed beyond the time limit provided by law and also held that

—Continued on page 48

Drug Advertising Seen Due To Feel Big Stick of the FTC

Drug advertising must go "back on a truthful level," says the Federal Trade Commission. To help put it there the agency has just drawn up a nine-point program to aid its staff in halting fictitious pricing and has issued instructions to start enforcing it immediately. Pointing out that program is aimed at advertisers and sellers of retail drugs and other merchandise, FTC Chairman John W. Gwynne described the guide as a long-needed spotlight on an advertising evil that has misled the public in its purchases and is steadily growing worse.

Because the FTC cannot hope to clean up the situation alone, it has enlisted the aid of the Better Business Bureaus and the Advertising Federation of America to acquaint the public with price tricks that have enabled unscrupulous merchants to pass off regularly-priced merchandise as bargains.

On receipt of the guides, Harry A. Babcock, FTC's executive director, emphasized that the commission's staff would heed them to the fullest of its capacity.

Mean What They Say

He added that "we are prepared to augment our hopes" of cooperation by sellers on a voluntary basis "by taking fast adversary action against those who think these guides don't mean what they say."

If applied strictly and to the letter, the guides conceivably may lead to a minor revolution in drug advertising practices, particularly in large consuming areas. The nine major types of fictitious pricing at which the new enforcement activities will be aimed are:

1. Savings Claims. Sellers must not represent or imply that they are offering a reduced price unless that price applies to a specific article—not just similar or comparable merchandise.

2. Merchandise must not be advertised as reduced in price if the former higher price is based on an artificial mark-up or on previous infrequent and isolated sales.

3. Comparative prices for comparable merchandise may be used only if the claim makes clear that the advertiser is talking only about comparable merchandise and not the former or regular price of the article he is selling.

4. Special sale prices must not be advertised unless they represent a bona-fide price reduction from the seller's customary retail price or a saving from the regular price in that trade area.

5. "Two-for-One Sales" claims may not be made unless the sales price for the two

—Continued on page 39

Ciba Co. Merger Unites Plastics, Products Units

The plastics division of Ciba Company, Inc., has become merged with its manufacturing affiliate, Ciba Products Corporation, with the result that Ciba Products is now the headquarters for all Ciba management, sales and technical services personnel for "Araldite" epoxy resins.

The company will continue to make its headquarters at Kimberton, Pa., until new research and production facilities are completed in Toms River, N.J., and its administrative and sales offices are transferred to new quarters in Fair Lawn, N.J.

Olin, Sun Establish SunOlin Chemical Co.

Confirming reports of last summer (OPD, 7/7/58), Olin Mathieson Chemical Corporation, New York, and Sun Oil Company, Philadelphia, have set up a joint subsidiary, to produce urea. The name of the new unit is SunOlin Chemical Company.

Incorporated in Delaware, the registered office of SunOlin is 100 West Tenth street, Wilmington. Reports last summer said the companies had contemplated a 73,000 ton-a-year urea plant at Marcus Hook, Pa., although no mention of the plant was made in the latest announcement.

James I. Harper, of Sun, has been named president of SunOlin and S. S. Johnson, of Olin, has been named vice-president.

Other officers are: secretary and assistant treasurer, J. R. Sanderford; treasurer and assistant secretary, Joseph T. Wilson, jr., and comptroller, Joseph R.

—Continued on page 70

Glidden Renames Division

Glidden Company is changing the name of its southern chemicals division to the organic chemicals division. The change in designation, the Cleveland, Ohio, firm says, marks the trend of the division toward new developments in organic chemicals. Headquarters of the division will remain in Jacksonville, Fla., with Dr. W. David Stallcup as vice-president in charge.

Hydrogen Plant in Canada To Be Erected by Girdler

Girdler Construction Division of Chemetron Corporation has contracted to design and furnish a hydrogen plant tailored specifically to the capacity and purity requirements of a 40,000-barrel-per-day refinery in Canada.

The plant will supply the refinery, being constructed in St. John, New Brunswick, for Irving Refining, Ltd., with more than 3 million cubic feet per day of 90 percent pure hydrogen. The gas will go to the refinery's hydrodesulfurization units for upgrading refinery products.

The Week's Price Changes

Lead, Mineral Orange, Tankage, Vetiver Oil, Zinc Advanced. Citral, Cortisone Acetate, Folic Acid, Mercury Reduced.

Prices Advanced

Caraway seed, Dutch, ½c. per lb. (p. 56). Polish, 1c. per lb.
Coconut oil, crude, ⅛c. per lb. (p. 64).
Corn oil, crude, ¼c. per lb. (p. 64). Refd., ¼c. per lb.
Cumin seed, Iranian, ½c. per lb. (p. 56).
Dried blood, Chicago, 25c. per unit-ton (p. 51).
Fishmeal, Atlantic coast, $7 per ton (p. 51).
Fishscrap, Atlantic coast, $7 per ton (p. 51).
Greases, ⅛c. per lb. (p. 64).
Lard, cash, ¼c. per lb. (p. 64).
Lead, ½c. per lb. (p. 37).
Lead, red, ½c. per lb. (p. 62).
Litharge, ½c. per lb. (p. 62).
Menhaden oil, crude, ¼c. per lb. (p. 64).
Mineral orange, ½c. per lb. (p. 62).
Paprika, Yugoslavian, 1½c. per lb. (p. 56).
Silver, ¾c. per oz. (p. 37).
Stannic oxide, ½c. per lb. (p. 37).
Tankage, Chicago, 25c. per unit-ton (p. 51).
Tallow, inedible, ⅛c. per lb. (p. 64).
Tin, ¾c. per lb. (p. 37).
Vetiver oil, Haitian, 50c. per lb. (p. 56).
Zinc, ½c. per lb. (p. 37).

Prices Reduced

Cardamoms, Alleppey green, 10c. per lb. (p. 56). Alleppey decorticated, 5c. per lb.
Cedarleaf oil, 25c. per lb. (p. 56).
Cinnamon, Ceylon No. 2, 3c. per lb. (p. 56). No. 0000, 2c. per lb. (p. 56).
Citral, 20c. per lb. (p. 56). Extra, 20c. per lb.
Citronellol, 30c. per lb. (p. 56).
Cloves, Madagascar, 3c. per lb. (p. 56).
Cocoa butter, 2c. per lb. (p. 64).
Copra, $2 per ton (p. 64).
Cortisone acetate, 60c. per gram (p. 53).
Cottonseed oil, crude, ⅛c. per lb. (p. 64). Refd., ⅛c. per lb.
Folic acid, USP, 4c. per gram (p. 53). 10% feed grade, $4 per kilo.
Geraniol, standard, 15c. per lb. (p. 56). Soap grade, 25c. per lb.
Ginger, Cochin, ⅛c. per lb. (p. 56).
Ginger oil, 50c. per lb. (p. 56).
Hydrocortisone alcohol or acetate, 65c. per gram (p. 53).
Hydroxycitronellal, 30c. per lb. (p. 56).
b-Ionone, 20c. per lb. (p. 56).
Linalool, ex bois de rose, 20c. per lb. (p. 56).
Mercury, $2 per ton (p. 37).
Methyl ionone, 20c. per lb. (p. 56).
Pepper, Malabar black, 1c. per lb. (p. 56). Lampong black, ¾c. per lb. Sarawak black, 1¼c. per lb. Muntok white, ½c. per lb.
Platinum, $1 per ton (p. 37).
Rapeseed oil, 1c. per lb. (p. 64).
Soybean meal, $5 per ton (p. 64).
Tapioca flour, spot, ½c. per lb. (p. 43).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Oct. 10, 1958	Oct. 3, 1958	Oct. 11, 1957
108.79	108.92	110.13

Turkey Tightens Chemical Lid

Turkey has placed a so-much-and-no-more limit on the amount of chemicals it will buy from foreign sources during the first quarter of next year. The amount: about $30 million. The reason: to institute the new exchange control program just being put into effect by the Turkish government to conserve its dollar exchange. Import quotas will be granted to foreign chemical makers on a first-come-first-served basis, with assurance that foreign exchange is available to cover the transaction.

The Turkish plan was disclosed in reports, just received by the International Cooperation Administration, of the steps being taken by Turkey under its stabilization program instituted last August.

For the first quarter of 1959, Turkey has allotted a total of $150 million of dollar exchange to cover imports of all products. Of this total, allotments have been announced for $131 million of products. These include $8.3 of "chemicals," $7 million of drugs, $6 million of fertilizers, $4.6 million of dyes, $1 million of pesticides, $1 million of antifreeze and hydraulic oil, and $2 million of plastic raw materials.

The $150 million total allotment for the

—Continued on page 55

Oil Progress Week Is On

This week is Oil Progress Week. With thousands of special events already scheduled in communities from coast to coast, oil industry observance for 1958 promises to be one of the best to date. It is sponsored by the American Petroleum Institute.

ASARCO SALES MANAGER: John Stuart Smart, jr., appointed general sales manager of American Smelting & Refining Company, New York.

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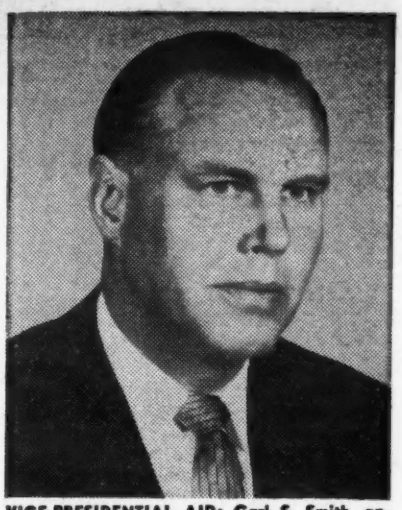

VICE-PRESIDENTIAL AID: Carl S. Smith, appointed executive assistant to Bert Cremers, vice-president of Wyandotte Chemicals Corporation and general manager of its Michigan Alkali Division, Wyandotte, Mich.

Vitro, Koppers Start Weapon System Work

Vitro Corporation of America and Koppers Company have signed a "joint venture" agreement that will enable Vitro Laboratories, in Silver Spring, Md., and the Koppers' Metal Products Division, Baltimore, Md., to team in undertaking weapon systems work for the Department of Defense.

A spokesman for the two companies said that the combination of Vitro's research and development facilities and Koppers' production facilities gives the Vitro-Koppers team one of the largest industrial capabilities on the east coast.

He pointed out that the agreement is for an indefinite period of time and may involve a number of projects. Most company teams are generally formed to bid on only one project, it was noted.

The Vitro-Koppers team will undertake all phases of weapon systems work from research and development through large-scale manufacture. The companies will seek contracts for missile ground support equipment as well as for design and production of complete weapon systems.

This team, the spokesman said, will use wholly-owned facilities and will require no government financing. Koppers' Metal Products Division operates three large manufacturing plants in the Baltimore area in addition to a plant in Philadelphia, Pa. Vitro owns the research and development facilities of Vitro Laboratories in Silver Spring and West Orange, N.J.; the electronic production facilities of NEMS-Clark Company in Silver Spring, and the aircraft and armament production facilities of Thieblot Aircraft Company in Martinsburg, W. Va. All these facilities will be available for projects.

Century Chemical Formed By Former Reichhold Man

A new chemical manufacturing concern, Century Chemical Corporation, has been formed by Theodore S. Hodgins and John J. Levenson, jr. The corporation will have offices in the Lincoln Building, 60 East 42nd street, New York, and will manufacture chemicals both in the United States and abroad.

Mr. Hodgins, a former vice-president of Reichhold Chemicals, Inc., will serve as president of the new corporation. Mr. Levenson, also formerly with Reichhold, will be executive vice-president and treasurer. David T. McGovern, of the law firm of Shearman & Sterling & Wright, will be secretary.

Chemical Men Told to Live With European Common Mart Or See Outlets Fade Away

US chemical manufacturers must learn to live with the European Common Market plan or else watch their own export outlets fade away. And in order to live with the European plan, overseas manufacturing is a must. These two points are the hard realistic core of a warning delivered by John Hilldring, president of General Aniline & Film Corporation, New York, fresh back from a tour of the member nations of the European plan. Ground has already been lost, Mr. Hilldring says, and more will be lost until US chemical men take a realistic look at what is happening in Europe.

Speaking at a luncheon meeting of the Synthetic Organic Chemical Manufacturers Association in New York last week, Mr. Hilldring warned that American businessmen who think the common market program will fail should stop deluding themselves. "There is a unanimous determination on the part of Western Europe to make the plan work," he added.

No Sugar Coating Offered

Mr. Hilldring offered no sugar coating for the bitter pill US chemical exporters must swallow. European business cartels are gone, he noted, "except where they will exist in the interest of all the common market."

"Make no mistake," he added, "free enterprise in the general market is a delusion. Anybody who believes there will be a Sherman act in the European plan will be in for an unhappy awakening."

These are "hardheaded" businessmen the American exporter must learn to deal with and "trivialities, such as the interests of the small businessman," will not stand in the way of their forming a strong economic union, he went on.

Yet, the reality of the organization must be faced and faced now. Is there discord? "No," Mr. Hilldring said emphatically. What was only a talking program a year ago has become a "machine in operation" this year. Plans for the first steps in the equalization of tariffs will be in effect by January 1.

Citing the dyestuffs market as an example, Mr. Hilldring reported that a twelve-year plan will begin in 1959 at the conclusion of which a 19 percent ad valorem tariff will be in effect throughout the member nations. At present, he said, some nations have no tariffs at all (the Benelux nations) while others have barriers higher than the one prescribed in the twelve-year plan.

Thus, he said, the European plan is a sword with a two-edged blade. It is an

—Continued on page 41

Calspray Plans to Build Fertilizer Plant in Wash.

California Spray-Chemical Corporation, Richmond, Calif., has plans afoot for the construction of a $4,600,000 chemical fertilizer plant at Kennewick, Wash.

Engineering work on the new unit is expected to begin immediately with completion scheduled for the end of 1959.

The plant will manufacture ammonium nitrate, ammonium nitrate solutions and high analysis nitric phosphate complex plant foods to meet the demand of agriculture in the Pacific northwest and Rocky Mountain states. Calspray has been supplying these materials from its Richmond, Calif., plant, which was completed in 1956.

Montrose Names Directors

Montrose Chemical Company, Newark, N. J., has elected two new directors to its board. The new members are Richard B. Schneider, vice-president of Empire Trust Company, New York, and Leon Quat, a New York attorney.

IN SUN DEVELOPMENT POST: Carl A. Setterstrom, named to the newly-created post of assistant director of commercial development in its research and development division by Sun Oil Company, Philadelphia.

Pennsalt Perchlorate Facility Starts Output

Pennsalt Chemicals Corporation has gone on stream in Portland, Ore., with its new plant for the production of ammonium perchlorate, a chemical used in high energy solid state missile propellants.

The new unit, under construction since February, is located adjacent to the Company's sodium chlorate installation. The sodium chlorate unit, which supplies the basic chemical from which ammonium perchlorate is made, was enlarged substantially during the past year to supply raw material to the new unit.

Ammonium perchlorate acts as the oxidizer when used in solid state rocket fuels, which have been employed in the second, third, and fourth stages in such operational rockets as the army's Jupiter C, used to put Explorer satellites into orbit, and in United States intercontinental missiles.

Pennsalt has been manufacturing sodium chlorate since 1942 at its Portland plant, for which Pennsalt engineers developed the company's own chlorate production cells. Sodium chlorate is used in

—Continued on page 70

Olin Mathieson Executive Will Hold Russian Talks

William C. Foster, vice-president of Olin Mathieson Chemical Corporation, New York, will head the American delegation to talk with the Russians at Geneva next month on prevention of surprise attack.

The meeting has not been formally set but is expected to be held around November 10. Mr. Foster was co-chairman of the Gaither Committee which last year made a top secret report on military and other problems which aroused great concern in congress.

Cobalt, Tungsten Probe on Imports Now a Possibility

Just what cobalt and tungsten imports are doing to the United States economy and just what effects they are having on national security are a couple of things that Mobilization Director Leo A. Hoegh might like to take a look into one of these days.

The staff of the Office of Civil and Defense Mobilization has recommended that he do so, following a request from the president of two metals-mining firms.

Maker of the request was W. M. Weaver, jr., president of Tungsten Mining Corporation and Howe Sound Company. He advised the government that he will have to curtail operations in his companies unless the government moves promptly to meet the import situation.

Two Big Operations

Mr. Weaver's tungsten operations are carried on in North Carolina, and the cobalt operations being carried on by Calera Mining Company, a subsidiary of Howe Sound Company, are based on the largest domestic cobalt ore body located at Cobalt, Idaho.

The investigation, if ordered by Mr. Hoegh, would be conducted under section 8 of the trade agreements law which empowers the President to take action to curb imports of any materials endangering the existence of an industry essential to national defense. Regulations under this section of the law are now in preparation to be issued at an early date.

Imports of tungsten ore and concentrate last year were valued at approximately $35 million and came from Bolivia, Canada, Argentina, Australia, Brazil, Peru and South Korea. Part of the imports were the result of bartering US agricultural surpluses for the metal from Argentina, and from long-term stockpile supply contracts made with Canadian tungsten mining interests.

With respect to the problem in cobalt, Mr. Weaver advised the agency that while his firm is under contract to deliver cobalt to the national stockpile under a contract entered early in the Korean war, this contract is nearing fulfillment and probably will terminate early in May, 1959.

If some government action is not soon forthcoming to justify continued operation after that date, the operation will have to close down, he said, and the heavy annual maintenance cost associated with underground mines must inevitably lead to abandonment with consequent flooding.

—Continued on page 48

India, West German Firms Weigh Intermediate Output

India's National Industrial Development Corporation is discussing with a consortium of West German firms the details of collaboration for the manufacture of intermediates for the drug, dyestuffs and plastic industries.

Surveys conducted in regard to the manufacture of aluminum, carbon black, cellulose, pulp and tungsten carbide are being followed up by efforts in the private sector to establish factories with foreign technical and financial collaboration.

Hooker Installs Largest Silicon Power Rectifier

Hooker Chemical Corporation has placed in full operation at its Niagara Falls, N.Y., plant what is said to be the world's largest silicon power rectifier, used to convert 60 cycle current to direct current for the operation of Hooker electrolytic cells in the production of chlorine and caustic soda.

The unit is the first of four such rectifiers which will be installed at the plant during the next six months. When completed, the four units will cost more than $1 million installed and will constitute the major segment of Hooker's gradual changeover from 25 cycle to 60 cycle power, which has been taking place over the last few years.

Venezuela Plans Chemical Shake-Up—We Might Help

The state-held Petrochemical Institute in Venezuela is in for a shake-up at the hands of the country's new national government—and it may be American experts who will direct the shaking-up.

The new government has announced that it wants to reorganize the institute and is looking around for help—presumably from the United States. The authorities are seeking competent know-how that can put the chemical plants to work and start training new local technicians to run them.

The first step will be to set up the government plants on a business basis, now that the "period of pilferage" of the former government is past, says the new regime.

The authorities add this about the plan:

"The national government is giving thought to the possibility of concluding temporary arrangements for administrative and advisory services with concerns able to put the institute on a strictly business basis.

"This approach, widely used in private industry, and in state-owned enterprises in various Ibero-American countries, would have the advantage of at once putting the plants to work, with a minimum risk of loss, while at the same time it would train Venezuelan technicians in their own plants and not in other climates or under theoretical conditions."

Right now, says the government, the institute is in a sad way. It explains:

"The plants, in their present state, are far from measuring up to their objectives. Apart from the small refinery which the institute possesses, only two of the plants may truly be classed as petrochemical. The others use natural gas exclusively for their fuel."

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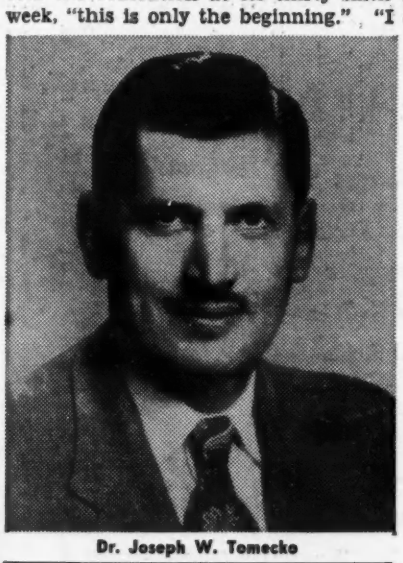
SOLVAY FILLS KEY MANAGERIAL POSITIONS: Harry C. Todd (left), appointed to the newly-created post of manager of distributor sales for Solvay Process Division, Allied Chemical Corporation, New York. William J. Cannon (right), named to succeed Mr. Todd as Solvay's advertising manager.

Paint Federation Prestige Will Grow Via Its Research Institute: Tomecko

Establishment of the Paint Research Institute last October has brought the Federation of Paint and Varnish Production Clubs tremendous prestige in the industry, reports FPVPC's retiring president. But, Dr. Joseph W. Tomecko of Canadian Industries, Ltd., Montreal, Canada, told the federation at its thirty-sixth annual meeting in Cleveland, Ohio, last week, "this is only the beginning." "I can foresee," he said, "added stature for the federation as the Paint Research Institute begins to pay off in new technical concepts for our industry as our research program develops."

FPVPC Convention Report



Dr. Joseph W. Tomecko

Dr. Tomecko was succeeded as FPVPC head for 1958-59 by Howard G. Sholl of C. M. Athey Paint Company, Baltimore, Md. Mr. Sholl had been president-elect of the federation during the past year.

Major Role Seen for Institute

Dr. Tomecko reported that the federation is now "convinced" that the Paint Research Institute will play a "major role" in the advancement of paint technology.

It will do this, he said, "through university-placed fellowships on basic research that should evoke new thinking and concepts for the paint industry."

The paint industry, which has achieved at least four major breakthroughs since the 1920's, is "now on the verge" of another one, declared Joseph F. Battley, president of the National Paint, Varnish & Lacquer Association.

Mr. Battley said that this new advance would rival these past industry achievements:

- Development of the synthetic resins just before World War II, thus freeing the paint industry from dependence on natural resins.
- Development of lacquers in the 1920's, which "revolutionized" automobile finishing.
- Discovery of alkyd resins and titanium dioxide pigments in the late twenties.

—Continued on page 58

Chemical Alumni to Meet

Chemical Bureau Alumni Association will hold its fall get-together November 13 at the Lexington hotel, New York. The meeting, which will get under way at 6 p.m., will be addressed by Dr. A. J. Weith, jr., administrative adviser to the director of the chemical and rubber division in Business and Defense Services Administration.

Botanical History Repeating: OPD Annual Survey Has Ring That's Reminiscent of 1948

History has pretty much repeated itself in the botanical drug country this year. The 1958 crop is in and it is the smallest in recent years. Cost-wise, everything is on the low side, too, for a final reckoning shows that primary dealers paid an average price per pound that was 25.8 percent below last year's. That is the way the figures stack up in the annual OIL, PAINT AND DRUG REPORTER survey which has just been completed in the botanical drug country in North Carolina, Virginia, Kentucky, Tennessee and Missouri.

When the botanicals gatherers put away their tools for the year and the buyers took an accounting of their stocks, they found that things were about what they had been a decade ago. When OPD began its surveys in '48, the production then disclosed was approximately the same as that in the survey just completed.

What OPD Said in '48

The 1948 report began with these words: "A 50 percent drop in collections . . . was the direct result of a mountain labor drift from drug collection to work in saw mills and canning factories, and to farming of agricultural crops that commanded high demand and prices from canners."

The botanicals belt, in the past ten years, has seen industry expand enormously. Industrial establishments of amazing diversity have become a drain on the labor supply that was formerly available for drug collection.

Contrasted with the back-breaking, low-pay labor of drug gathering, industrial employment has provided high wages for a relatively few hours of easy work.

In 1958, only a few of the hardy old diggers turned out to seek botanical drugs, and they did so at prices so low as to discourage all but the entirely dedicated, the OPD survey disclosed.

An average price of 37.3 cents per pound was paid in 1958. Ten years ago, a crop of similar size was obtained at an average of 29.8 cents. In 1957, 50.3 cents was paid, the highest in recent years. In 1956, 39.1 cents was the figure. And in 1955, 35.3 cents.

Some dealers contacted by OPD lamented that the 1958 crop was down 50 to 75 percent from the 1957 level—although the latter year had recorded a harvest of

—Continued on page 71

SCHENLABS VICE-PRESIDENT: Dr. William T. Strauss, elected a vice-president of SchenLabs Pharmaceuticals, Inc., New York, ethical pharmaceutical affiliate of Schenley Industries, Inc., and made medical director of the firm.

Minneapolis and St. Paul Will Be Hosts for CMRA

Minneapolis and St. Paul, Minn., will jointly play host to the Chemical Market Reserach Association at its fall meeting, to be held November 12 and 13 at the St. Paul hotel.

The meeting will deal with the adhesives field and will have as a special feature a market shop consisting of talks on case histories in marketing research.

Speakers on the subject of adhesives will include: R. F. Blomquist, of the forest products laboratory of the Department of Agriculture; D. H. Maher, merchandising manager of the adhesives, coatings and sealers division of Minnesota Mining & Manufacturing Company, and R. E. Smith,

—Continued on page 40

NPVLA's Keynote Is 'Colorful World'

"The Colorful World of Tomorrow" will be the theme for the seventy-first annual meeting of the National Paint, Varnish & Lacquer Association, to be held October 27 through 29 in the Shoreham and Sheraton-Park hotels, Washington, D. C.

The meeting will feature general sessions, forums and workshop sessions.

On the opening day the principal address will be given by H. C. McClellan, who will speak on "Your Responsibility in Public Affairs."

Three forums are scheduled for the opening day. The first will be for roof coating and roof cement manufacturers. The second will be on legislative matters

—Continued on page 45

MCA Appoints Settle Public Relations Head

Allan E. Settle has been named director of public relations of the Manufacturing Chemists' Association as of November 1. Mr. Settle succeeds George M. Worden, who has resigned from MCA to open his own public relations firm in Washington.

Association Meetings

American Association of Textile Chemists & Colorists, national convention, Conrad Hilton hotel, Chicago, October 30-November 1.

American Coke & Coal Chemicals Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., October 20-21.

American Oil Chemists' Society, fall meeting, Sherman hotel, Chicago, October 20-22.

American Petroleum Institute, annual meeting, Conrad Hilton, Palmer House and Congress hotels, Chicago, November 10-13.

Antibiotics Annual Symposium, Willard hotel, Washington, D. C., October 15-17.

Association of American Feed Control Officials, annual meeting, Shoreham hotel, Washington, D. C., October 15-16.

Association of American Fertilizer Control Officials, annual meeting, Shoreham hotel, Washington, D. C., October 17.

Association of American Pesticide Control Officials, annual meeting, Shoreham hotel, Washington, D. C., October 18.

Association of Consulting Chemists & Chemical Engineers, annual meeting, Biltmore hotel, New York, October 28.

Association of Official Agricultural Chemists, annual meeting, Shoreham hotel, Washington, D. C., October 13-15.

Chemical Bureau Alumni Association, fall get-together, Lexington hotel, New York, November 13.

Chemical Market Research Association, adhesives meeting, St. Paul hotel, St. Paul, Minn., November 12-13.

Chemical Section of 1958 National Safety Congress, LaSalle hotel, Chicago, October 20-23.

Chemical Specialties Manufacturers Association, annual meeting, Commodore hotel, New York, December 8-10.

Commercial Chemical Development Association, joint meeting with National Agricultural Chemicals Association, Lord Baltimore hotel, Baltimore, Md., and Beltsville, Md., November 20-21.

Drug, Chemical & Allied Trades section of the Young Men's Board of Trade, annual Young Man of the Year award dinner, Park-Sheraton hotel, New York, October 16.

Fragrance Foundation, annual convention, Waldorf-Astoria hotel, New York, October 21.

Manufacturing Chemists' Association, semi-annual meeting and winter conference, Statler hotel, New York, November 25.

National Agricultural Chemicals Association, annual meeting, General Oglethorpe hotel, Savannah, Ga., October 29-31.

National Paint, Varnish & Lacquer Association, annual convention, Shoreham and Sheraton-Park hotels, Washington, D. C., October 27-29.

National Pest Control Association, silver anniversary convention, Statler hotel, Washington, D. C., October 20-23.

National Plant Food Institute, conference on chemical control problems, Shoreham hotel, Washington, D. C., October 16.

National Plastics Exposition, sponsored by Society of Plastics Industry, International Amphitheatre, Chicago, November 17-21.

Packaging Institute, national packaging forum, Edgewater Beach hotel, Chicago, October 13-15.

Pharmaceutical Manufacturers Association, midyear meeting, Waldorf-Astoria hotel, New York, December 8-10.

Salesmen's Association of the American Chemical Industry, chemical sales clinic, Roosevelt hotel, New York, October 20; annual dinner meeting, Commodore hotel, New York, October 29.

Society of Plastics Industry, annual national conference, Morrison hotel, Chicago, November 17-21.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, November 12.

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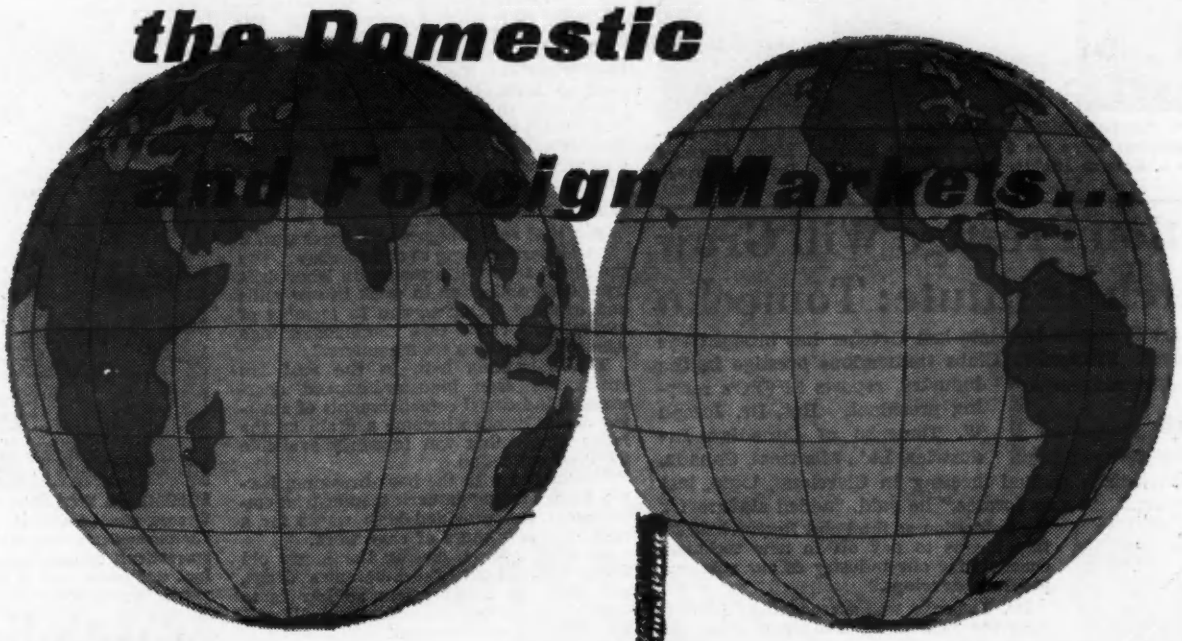
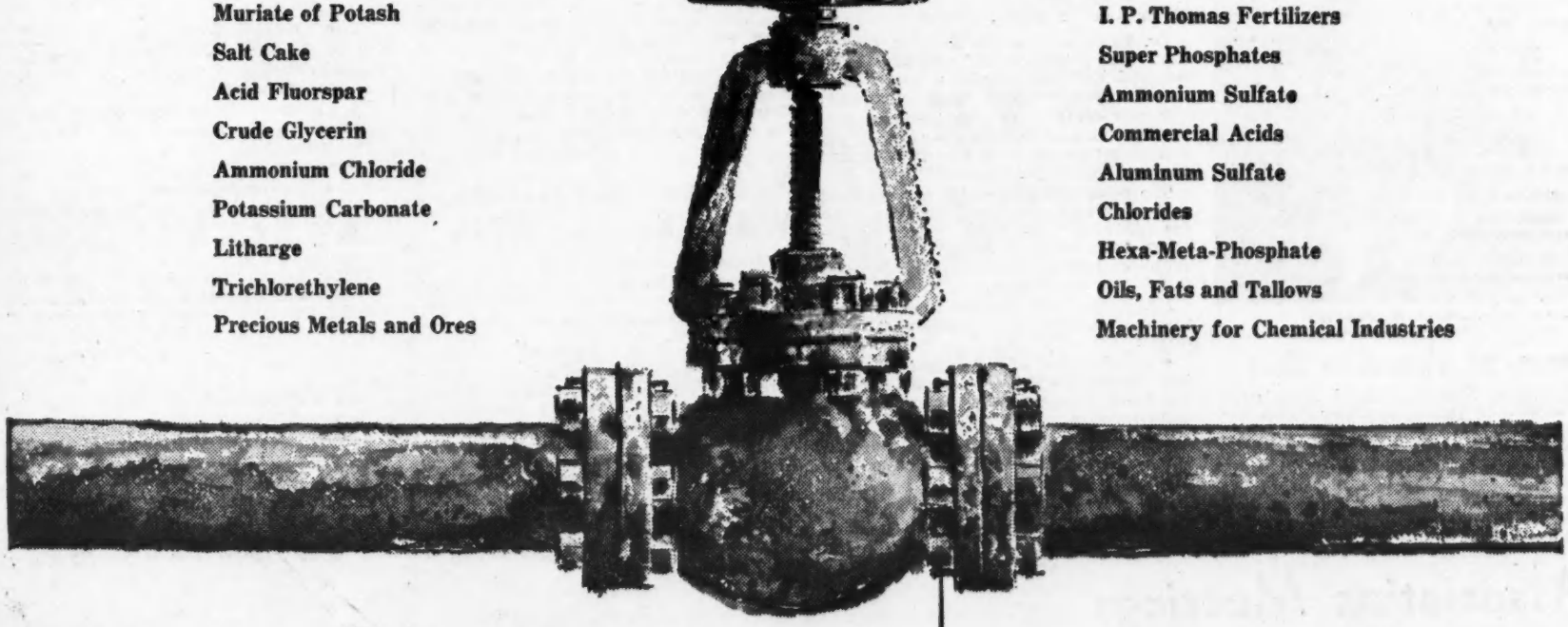


Importing:

Muriate of Potash
Salt Cake
Acid Fluorspar
Crude Glycerin
Ammonium Chloride
Potassium Carbonate
Litharge
Trichlorethylene
Precious Metals and Ores

Exporting:

I. P. Thomas Fertilizers
Super Phosphates
Ammonium Sulfate
Commercial Acids
Aluminum Sulfate
Chlorides
Hexa-Meta-Phosphate
Oils, Fats and Tallows
Machinery for Chemical Industries



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CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, October 10 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 3.60 - 4.25
Acacia (see Arabic gum).
Acenaphthene, below 92.5 C. m.p., dms., works .lb. .40 - —
Above 92.5 C. m.p., bbls., dms., lb. .41 - .50
Acetaldehyde, 99%, dms., c.l., works, lb. .12 - —
dms., l.c.l., works ..... lb. .13½- —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld. lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld. lb. .36½- —
USP, bbls., 225-lb. dms. any quantity .lb. .79 - —
100-lb. dms., any quantity .lb. .81 - —
Acetic acid, coml. or redist., 28%, bbls. .100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd. .100 lbs. 22.00 -23.00
tech., dms., c.l., dlvd. ...100 lbs. 13.75 - —
dms., l.c.l., dlvd. .....100 lbs. 14.25 - —
tanks, dlvd. .....100 lbs. 10.00 - —
USP, cbys., dlvd. .....100 lbs. 31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E. lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .17½- —
tanks, dlvd. E. ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd. lb. .80 - —
fib. dms., l.c.l., dlvd. ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd. lb. 1.35 - —
fib. dms., l.c.l., dlvd. ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd. lb. .82 - —
fib. dms., l.c.l., dlvd. ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd. ..lb. .11 - —
dms., l.c.l., dlvd. ..... lb. .12 - —
tanks, dlvd. ..... lb. .08½- —
Acetonitrile, dms., c.l., works ....lb. .45 - —
dms., l.c.l., works ..... lb. .45¾- —
Acetophenetidin, USP, dms., works, frt. equald. .lb. 1.22 - 1.24
Acetophenone, cns., dms. ..... lb. .42 - 1.30
tech., dms., c.l., works ..... lb. .37 - —
dms., l.c.l., works ..... lb. .37¾- —
tanks, works ..... lb. .35 - —
N-Acetyl-p-aminophenol, dms., frt. adjusted .lb. 1.75 - 1.85
Acetylene black, imp., bgs., c.l., duty and freight extra .lb. .19 - —
cs., l.c.l., ex whse. ..... lb. .24½- .30
Acetylsalicylic acid, USP, special, makers, primary distrib., bbls., 1,000-lb. lots, point of shipt lb. .63½- —
USP, standard, fine, cryst. gran., (30-40 mesh) powd., (80 mesh), bbls., 1,000-lb. lots, same basis .lb. .58½- —
Freight equald, shipt. identical quantity over standard routes, from N. Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver .lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver .lb. .36½- —
tanks, frt. alld. E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver .lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver .lb. .40½- —
tanks, frt. alld. E. of Denver .lb. .37 - —

Acids

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech. dms., c.l., works .lb. .47 - —
dms., l.c.l., works ..... lb. .47½- —
tanks, works ..... lb. .46 - —
Acrylonitrile, dms., c.l., t.l., frt. equald. .lb. .30 - —
dms., l.c.l., t.l.l., frt. equald. ...lb. .31 - —
tanks, frt. equald ..... lb. .27 - —
Adeps lanae (see lanolin).

Abies Siberica Oil—Ammonium Bicarbonate

Adipic acid, bgs., c.l., dlvd. .....lb. .32¼- —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 1.90 - 2.00
powd., 30 mesh., fib., dms. .lb. 2.50 - —
dl-Alanine, dms., works ..... lb. 8.50 -11.00
Albumin, blood, dark (see Blood, dried, soluble).
light, dms. ..... lb. .65 - .85
Albumin, egg, edible, cryst., powd., bbls. .lb. 1.09 - 1.11
flake, bbls. ..... lb. 1.05 - 1.07
tech., cryst., bbls. ..... lb. 1.08 - 1.10
Aldol, 95%, dms., works ..... lb. .23 - —
Denaturing grade, dms. ..... gal. 2.15 - —

Alcohols

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aldrin, tech., fib. dms., c.l., t.l., dlvd. .lb. .93 - —
fib. dms., l.c.l., dlvd. ..... lb. .98 - —
Aletris root, bgs. ..... lb. 1.75 - 1.85
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies ..... lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis. lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld .lb. 26.50 -26.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld .lb. 6.50 - 6.55
2½% dms. frt. alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l., dlvd. .... lb. .32½- —
dms., l.c.l., dlvd. ..... lb. .33½- —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works. lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd. ..lb. .17¼- —
dms., l.c.l., dlvd. ..... lb. .18¼- —
tanks, dlvd. ..... lb. .15 - —
Allyl isocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde).
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
USP, sweet, cns., dms. ..... lb. .90 - 1.40
Aloe, Cape, cs. ..... lb. .50 - —
powd., cs. ..... lb. .75 - —
Curacao, kgs. ..... lb. .60 - —
powd., kgs. ..... lb. .80 - —
Aloin, USP, bbls., dms., kgs. ....lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene)
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works .100 lbs. 4.30 - —
lump, dms., works .....100 lbs. 5.05 - —
powd., dms., works.....100 lbs. 5.20 - —
USP, burnt, dms. ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum, potassium, gran., bgs., works, 100 lbs. 4.55 - —
lump, dms., works .....100-lbs. 5.30 - —
powd., dms., works.....100 lbs. 5.45 - —
USP, burnt., dms. ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum, potash-chrome, dms. ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works, lb. .05 - —
bgs., l.c.l., works ..... lb. .05¼- .06
Aluminum acetate, basic soln., 24%, bbls., l.c.l., works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald. .lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l. works..100 lbs. 21.00 - —
dms., l.c.l., works .... 100 lbs. 21.50 - —
soln., 32°, cybs., c.l., works..lb. .0495- —
cbys., l.c.l., works ..... lb. .0555- .1325
tanks, works .....100 lbs. 3.45 - —
NF, gran., dms., works ..... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works. lb. .17¼- —
bgs., l.c.l., works ..... lb. .18¼- .20¼
Aluminum fluoride in fib. dms. 0.35c. per lb. higher
Aluminum formate, basic soln., dms., c.l., works..lb. .12 - —
dms., l.c.l., works ..... lb. .12½- —
Aluminum hydrate, heavy, bgs., c.l., frt. equald. .lb. .03½- —
bgs., 20,000-40,000 lb. lots, same basis. lb. .03¾- —
bgs., 2,000-20,000 lb. lots, same basis. .lb. .04¾- —
bulk, c.l., same basis ..... lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works. lb. .82½- —
fib. dms., contract, works .lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib. dms., works .lb. .22 - —
9-9½% Al_2O_3, fib. dms., works lb. .19 - —
fib. dms., contract, works.lb. .18 - —
Aluminum hydroxide, tech., powd. (See Aluminum hydrate).
Aluminum metal, 99%+, ingots, 10,-000-lb. lots, frt. alld. .lb. .2680- —
pigs, 10,000-lb. lots, frt. alld .lb. .2470- —
Aluminum oxide, amorphous (See Alumina, calcined).
Aluminum paste, lining, extra-fine, dms .lb. .69½- —
Standard grade, dms. ..... lb. .47 - —
Aluminum powder, lining, extra-fine, dms. .lb. 1.11 - —
Standard grade, dms. ..... lb. .81 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs., 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or over.
Aluminum resinate, precip., 2.1% t.t.l., dms lb. .36¼- —
Aluminum stearate, dibasic, ctns., c.l. .lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs., c.l., works, frt. equald. .ton. 41.00 - —
grd., bulk, c.l., same basis .ton. 40.00 - —
lump, bgs., c.l., same basis .ton. 44.00 - —
Coml., iron-free, bgs., c.l., works, frt. equald. .100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., dms., works ..... lb. .30 - —
powd., dms., works ..... lb. .37 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
p-Aminoacetanilide, frt. alld. ....lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.50 - 1.75
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works .lb. 1.72 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. .lb. .475 - —
dms., l.c.l., dlvd. ..... lb. .485 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. .lb. .44 - —
dms., l.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lb. 2.50 - —
p-Aminophenol, dms., frt. alld. ..lb. 1.15 - —
Aminophylline, USP, 100-lb. dms .lb. 3.55 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted .lb. 3.70 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. .ton. 84.00 - —
refrigeration, tanks, works, frt. equald. .ton. 86.50 - —
Aqueous, 29.4%, tanks, works, anyhd. basis .ton. 87.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal. gray, bgs., c.l., works, frt. equald. .100 lbs. 8.25 - —
bgs., l.c.l., same basis .100 lbs. 8.65 -13.65
Ammoniac, sal., white (see Ammonium chloride, tech.).
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works. lb. 1.00 - —
fib dms. 1,000-lb lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works. .ton. 324.50 - —
dms., ton lots, ex whse. .ton. 407.50 - —
dms., smaller lots, ex whse. .ton. 412.50 - —
Ammonium bicarbonate, dom., dms., c.l., works. .100 lbs. 7.00 - —
dms., l.c.l., works ..... 100 lbs. 9.00 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
		dms.	drums	ord.	ordinary
anhyd.	anhydrous	dom.	domestic	oz.	ounce
AOAC	Association of Official Agricultural Chemists	E.	east	p-	para
		e.p.	end point	Pac.	Pacific
		equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
a.p.a.	available phosphoric acid	Ext.	external	photo.	photographic
		F.	fahrenheit	pkgs.	packages
approx.	approximately	ferment.	fermentation	powd.	powdered
artif.	artificial	f.f.a.	free fatty acid	precip.	precipitated
ASTM	American Society for Testing Materials	f.f.c.	free from chlorine	prod.	producer
		fib.	fiber	pt.	point
Atl.	Atlantic	f.o.b.	free on board	pulv.	pulverized
Be.	Baume	f.p.a.	free of prussic acid	purif.	purified
bbls.	barrels			redist.	redistilled
bgs.	bags	frt.	freight	refd.	refined
bls.	bales	gal.	gallon	refy.	refinery
bots.	bottles	gran.	granular	reg.	regular
b.p.	boiling point	grd.	ground	resub.	resublimed
b.p.l.	bone phosphate of lime	I &a.	iron and aluminum	ret.	returnable
		i.b.p.	initial boiling point	SD	specially denatured
b.r.	boiling range	imp.	imported	s.d.	single distilled
bxs.	boxes	incl.	included	S E.	southeast
C.	centigrade	indust.	industrial	sec.	secondary
cbys.	carboys	kgs.	kegs	secs.	seconds
CD	completely denatured	l-	laevo	s.g.	specific gravity
		lacq.	lacquer	shipt.	shipment
c.i.f.	cost, insurance, freight	lb.	pound	soln.	solution
cks.	casks	l.c.l.	less than carlots	s.u.	standard unit
c.l.	carlots	l.t.l.	less truckload	syn.	synthetic
cns.	cans	liq.	liquid	tanks.	railroad tankcars
coml.	commercial	mfrs.	manufacturers	tech.	technical
conc.	concentrated	m-	meta	tert-	tertiary
CP	chemically pure	m.a.p.	mixed aniline point	t.l.	truck loads
cps.	centipoises			t.w.	tank wagons
cryst.	crystalline	min.	minimum	USP	U. S. Pharmacopoeia
cs.	cases	m.p.	melting point		
ctns.	cartons	N-	nitrogen	vis.	viscosity
cyls.	cylinders	n-	normal	VM&P	varnish makers & painters
d-	dextro	nat.	natural		
dbl.	double	neut.	neutral	W.	west
denat.	denatured	NF	National Formulary	whse.	warehouse
dest-dist	destructively—distilled	NNR	New and Nonofficial Remedies	w w.	water-white
dl-	dextrolaevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Ammonium bichromate, dms., works. lb. .42 - .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245
Ammonium bromide, NF, gran., bbls. lb. .45 - —
Powdered ammonium bromide 10c. per lb. higher.
Ammonium carbonate, USP, lump, dms., c.l. lb. .15½- —
Ammonium chloride, tech., fine gran., bgs., c.l., works 100 lbs. 5.75 - —
bgs., l.c.l., works 100 lbs. 7.75 - 8.20
USP, gran., fib. dms. lb. .17¼- —
Ammonium citrate, dibasic, bbls. lb. .77 - —
Ammonium dichromate (see Ammonium bichromate).
Ammonium fluoride (see Ammonium bifluoride).
Ammonium gluconate, tech., dms.lb. .45 - —
Ammonium hydroxide (see Ammonia aqueous).
Ammonium Iodide, NF, dms., bots. lb. 4.26 - 4.38
Ammonium lauryl sulfate, dms., c.l., frt. alld. lb. .19 - —
dms., l.c.l., frt. alld. lb. .20 - —
tanks, frt. alld. lb. .18 - —
Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium lignin sulfonate bgs., c.l., works 100 lbs. 3.25 - —
l.c.l., bgs., works 100 lbs. 3.40 - 3.65
Ammonium molybdate, CP, cryst., fib. dms., 15,000 lbs., works lb. 1.22 - —
fib. dms., 2,000-lb. contracts, works lb. 1.23 - —
single fib. dms., works lb. 1.24 - —
Ammonium nitrate, dom., fertilizer grade, 33.5% N bags., f.o.b. works ton.65.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $8 ton, base price ton.65.00 - —
western, bgs, c.l., f.o.b. cars, Los Angeles ton.79.69 - —
with dolomite, 20.5% N, bgs., Hopewell, Va. ton.49.75 - —
Ammonium oxalate, tech., fine gran., powd., dms. lb. .28½- .34½
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse. ton.284.50 - —
bgs., smaller lots, ex whse ton.289.50 - —
Ammonium pentaborate powder $10 per ton higher.
Ammonium persulfate, tech., dms., 10-ton lots or more, works. lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comL, bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Ammonium phosphate dibasic, NF, V bbls. dms. lb. .46 - —
Tech., bgs., c.l., works, frt. equald. lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Ammonium silicofluoride, dms., works lb. .11¾- .13¼
Ammonium sulfamate bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- .27
Ammonium sulfate, coke-oven, bulk, producing ovens, base price ton.32.00 - —
purif., dms., works lb. .10 - .10½
Syn., bulk., c.l., works ton.35.00 - —
bgs., c.l., works ton.40.00 - —
Ammonium sulfate, tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., t.l.l., works—100 lbs. 3.20 - 7.20
Ammonium sulfide, liq., 40-44%, tanks, frt., equald..100% basis ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., cryst., dms. c.l. works lb. .20 - —
dms., l.c.l., works lb. .22 - .26
tech., soln, 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycollate, comL, cbys., 100% basis lb. 1.35 - 1.65
Highly purif., cbys. 100% basis. lb. 1.70 - 1.96
d-Amphetamine hydrochloride, di-basic, bots lb.17.50 -23.00
dl-Amphetamine hydrochloride, di-basic, bots lb. 4.50 - 6.00
d-Amphetamine hydrochloride, mono-basic. dms lb.17.50 -21.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms lb. 4.20 - 5.00
d-Amphetamine sulfate, fib. dms., lb.15.00 -17.00
dl-Amphetamine sulfate, fib. dms., lb. 4.20 - 5.00
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .19½- .20
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg. dms., c.l., dlvd lb. .19 - —
dms., l.c.l., dlvd. lb. .20 - —
tanks, dlvd. lb. .16½- —
Syn., oxo process, dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd. lb. .20 - —
tanks, dlvd. lb. .16½- —
Tech., dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18 - —
tanks, dlvd. lb. .14½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd.).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43 - —
refd., ACS grade, dms., l.c.l., dlvd lb. .45 - —
Amyl alcohol, ex pentane, mixed, amyls dms., c.l., frt. alld. lb. .18½- —
dms., l.c.l., frt. alld lb. .19½- —
tanks, frt. alld. lb. .16 - —
primary, dms., c.l., frt. alld. lb. .20¼- —
dms., l.c.l., frt. alld. lb. .21¼- —
tanks, frt. alld. lb. .17¾- —
sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., works lb. .20 - —
tanks, works. lb. .17 - —
tert-synthetic, dms., c.l., frt. alld. E lb. .18½- —
dms., l.c.l., frt. alld. E lb. .19½- —
tanks, frt. alld. E lb. .16 - —
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .42½- —
tanks, works lb. .39½- —
Amyl alcohol, 2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.75 - 2.20
e-tert Amyl phenol, dms., c.l., works. lb. .49½- —
dms., l.c.l., works lb. .50½- —
tanks, works lb. .47 - —
p-tert Amyl phenol, dms., c.l., works. lb. .26¾- —
dms., l.c.l., works lb. .27¾- —
Amyl salicylate, cns., dms. lb. .80 - 1.10
Amyris oil, dms. lb. 1.30 - 1.75
Anethole, USP; cns., dms lb. 1.25 - 1.70
Tech., dms. lb. .85 - .90
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots. lb.120.00 -130.00
Aniline, dms., c.l., frt. alld lb. .20 - —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt. alld. lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., truckloads, 20,000 lbs. min., frt. alld. lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms. lb. 2.00 - 4.05
Anise seed, Mexican, bgs. lb. .17½- —
Spanish, bgs. lb. .17½- —
Anisic aldehyde, dms. lb. 1.85 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l., f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt. alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .29 - —
cs., c.l., mines lb. .29½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .24½- —
bgs., l.c.l., frt. alld. lb. .26 - —
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. 23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb. dms lb. .69½- —
USP, powd., 250-lb. dms. lb. .74½- —
Antipyrine, NF, 200-lb. bbls lb. 3.50 - —
Apomorphine hydrochloride, USP, 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms. lb. .85 - 1.25
Arabic gum, amber sorts, bgs lb. .21 - .23
USP, powd., bbls. lb. .26 - .29
Areca nuts, powd., bbls. lb. .13 - —
Arecoline hydrobromide, NF, bots., tins oz. 3.75 - —
1-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
1-Arginine glutamate, dms., 10-kilo lots or more kilo.60.00 - —
1-Argenine monochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. 1.40 - 1.50
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .031 - —
Arsenic trioxide, USP, dms. lb. .48 - —
Arsenic white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Maroon shade, bbls. lb. 3.70 - —
Asafetida gum, cns. lb. .40 - —
Powd. bbls., dms. lb. .85 - —
Asbestine (see Talc fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons) mines ton.86.00 - —
7D, c.l. (30 tons) mines ton.75.00 - —
7F, c.l. (30 tons) mines ton.71.00 - —
7H, c.l. (30 tons) mines ton.61.00 - —
7K, c.l. (30 tons) mines ton.50.00 - —
7M, c.l. (30 tons) mines ton.44.00 - —
7R, c.l. (30 tons) mines ton.43.00 - —
7RF, c.l. (30 tons) mines ton.44.00 - —
7T, c.l. (30 tons) mines ton.41.00 - —
7TF, c.l. (30 tons) mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP dms., 25-100 kilo lots kilo.10.00 - —
dms., 10-kilo lots kilo.10.35 - —
dms., 5-kilo lots kilo.10.75 - —
bots., 1-kilo lots kilo.12.00 - —
bots., 500-gram bots. kilo.12.50 - —
Ash black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.40.00 - —
ex-whse, N. Y., N. J ton.86.50 - —
seconds, 300°-390°F. fusing pt., bgs., c.l., mines ton.35.00 - —
select, 350°F. fusing pt., bgs., c.l., mines ton.41.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton.40.00 - —
Asphalt, manjak No. 10 crude, dms., works lb. .07 - —
Asphalt, petroleum, cut-back, tanks, tankwagon, refy gal. .09 - —
emulsion tanks tankwagon, refy. gal. .09½- —
Asphalt, petroleum, steam-refd., 50-80 penetration, tanks, tankwagon, refy ton.21.00 - —
85-300 penetration tanks, tankwagon, refy ton.20.00 - —
Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins oz. 5.75 - 6.50
Atropine sulfate, USP bots. oz. 5.00 - 5.50
Avocado oil, f.o.b. Calif., cns. lb. 2.25 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 - —
less than 1,000,000,000 units. 50,000 units. .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs. lb. .28 - .30
Barbital, NF, 100-lb. dms. lb. 4.50 - —
Barbital sodium, NF, dms. lb. 4.75 - —
Barium carbonate precip. bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride anhyd. bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
Barium chloride, NF, cryst., 100 lb. dms lb. .22 - —
Tech., cryst., bgs., c.l., works. 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs. frt. equald.lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.l.l., frt. equald ton.218.00 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd. lb. .16 - —
bbls., l.c.l., t.l.l., dlvd. lb. .17 - —
Barium oxide grd., dms., c.l., t.l., frt equald ton.275.00 - —
dms., l.c.l., t.l.l., frt. equald ton.285.00 - —
Barium peroxide dms. frt. equald lb. .20 - —
Barium stearate, ctns. c.l., frt. alld. lb. .41 - —
ctns., l.c.l., same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, dms. lb. .15 - .15½
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., l.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs., mines ton.25.00 - —
95-75%, bgs., mines ton.25.00 - —
white, water-grd., paper bgs., c.l., St. Louis ton.55.00 -55.25
paper bgs., ex whse., New York ton.79.85 - —
Battery acid cbys. c.l. works, E. 100 lbs. 2.35 - —
cbys., l.c.l., works, E 100 lbs. 2.65 -10.95
Bauxite bulk, mines ton. 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55%, cns lb. 2.10 - 3.05
55-60%, cns. lb. 2.50 - 3.05
West Indian, 50-55% cns. dms., lb. 2.30 - 3.00
Bayberry wax, bgs. lb. .45 - .47
Beeswax, crude, African, bgs lb. .56 - .58
Brazilian, bgs. lb. .67 Nom.
Central American, bgs. lb. .60 Nom.
Chilean bgs. lb. .67 Nom.
Refd., USP, bleached, white, bricks, 100-lb. ctns lb. .72 - .73
white, slabs, 100-lb. ctns lb. .71 - .72
yellow, bricks, 100-lb. ctns lb. .63 - .65
yellow, slabs, 100-lb. ctns lb. .62 - .64
Belladonna leaf, bls. lb. .30 - —
Belladonna root, bls. lb. .30 - —
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white high gel. bgs., 5-ton lots, ex whse ton.91.00 - —
bgs., 1-ton lots, ex whse ton.94.00 - —
low gel. bgs., 5-ton lots ex whse ton.89.35 - —
bgs., 1-ton lots, ex whse ton.92.35 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .80 - .86
Tech., cbys. dms., t.l. lb. .43 - —
cbys. smaller lots lb. .44 - —
Benzene, coaltar, pure or nitration, tanks, works:
Bethlehem, Pa. gal. .31 - —
Birmingham district gal. .31 - —
Chicago district gal. .31 - —
Cleveland district gal. .31 - —
Geneva, Utah gal. .31 - —
Johnstown, Pa. gal. .31 - —
Lackawanna, N. Y. gal. .31 - —
Lone Star, Tex. gal. .31 - —
Lorain, Ohio gal. .31 - —
Middletown, Ohio gal. .31 - —
Minnequa, Colo. gal. .31 - —
Philadelphia district gal. .31 - —
Pittsburgh district lb. .31 - —
Sparrows Point, Md. gal. .31 - —
Syracuse, N. Y. gal. .31 - —
Terre Haute, Ind. gal. .31 - —
Youngstown, Ohio gal. .31 - —
Benzene, petroleum, nitration or industrial, Houston, Tex., tanks, gal. .31 - —
Benzene hexachloride 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride tech. high gamme, dms., c.l. dlvd. gamma unit-lb. .00825- —
dms., l.c.l., works gamma unit-lb. .009 - .0095
low gamma, dms., c.l. dlvd. gamma unit-lb. .00825- —
dms., l.c.l., works gamma unit-lb. .009 - —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls. dlvd. lb. 2.30 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms. lb. 3.48 - 3.50
Benzoic acid, tech., bbls., dms., c.l., t.l., frt., alld lb. .37 - —
bbls., dms., ton lots, same basis lb. .41 - —
bbls., dms., 1,000-lb. lots, same basis lb. .43 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb. lots lb. .50 - —
Benzoin gum, Sumatra, cs. lb. .33 - —

Benzol

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzophenone, dms. lb. 1.40 - 1.70
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt., equald lb. .21 - —
cbys. smaller lots, frt., equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt., equald lb. .22 - —
cbys., l.c.l., same basis lb. .23 - —
tanktrucks, dlvd., Metropolitan area, lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb. lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. 58 - .79
Benzyl alcohol, NF, dms. lb. .58 - .80
Tech., dms., dlvd. lb. 47½- .65
Benzyl benzoate, USP, NF, 40-lb. dms. lb. .66 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt., equald lb. .22½- .25½
cbys., dms., l.c.l., same basis lb. 23½- 25½
tanktrucks, dlvd., Metropolitan area lb. .21 - —
A 2½c. differential is quoted on benzyl chloride in 5-gal cbys. In steel dms. prices are ½c. lower.
Benzyl cinnamate, cns. lb. 3.30 - 3.60
Benzyl dimethylamine, dms., works. lb. 2.25 - —
Benzyl formate, cns. lb. 1.85 - 2.10
Benzyl isoeugenol, cns. lb. 9.85 - —
Benzyl propionate, bots. lb. 1.35 - 1.65
Benzyl salicylate, bots. lb. 1.60 - 1.65
Benzylidine acetone, bots. lb. 1.75 - 1.80
Benzylidine chloride. (see Benzal chloride).
Berberine bisulfate, cns. lb.35.00 -36.25
Berberine hydrochloride, bots. lb.35.00 -36.25
Bergamot oil, nat. NF Italian cns. lb.12.75 -14.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid)
Betamethylnaphthalene (see b-Methylnaphthalene).
Betanaphthol (see b-Naphthol)
Betanaphthylamine (see b-Naphtholamine)
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots. gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 1.85
Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms. lb. 4.60 - 4.65
Bismuth metal, bxs., ton lots lb. 2.25 - —
Bismuth nitrate, cryst., dms. lb. 2.08 - 2.17
Bismuth oxide, anhyd., dms. lb. 4.47 - 5.05
Bismuth oxychloride, dms. lb. 4.37 - 4.42
Bismuth subcarbonate, USP dms lb. 3.20 - —
Bismuth subgallate NF fib dms lb. 3.15 - —
Bismuth subiodide, fib. dms. lb. 5.37 - —
Bismuth subnitrate, NF dms. lb. 2.65 - —
Bismuth subsalicylate, USP, dms lb. 3.50 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A bgs., c.l., t.l., frt. alld. lb. .30 - —
bgs., l.c.l., same basis lb. .31 - —
Blackberry root bark bls. lb. .50 - .55
Black haw root bark bls. lb. .63 - .65
Black haw tree bark bls. lb. .45 - 50

Black Pigments

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs. c.l., works ton.145.00 - —
bgs., l.c.l., works ton.155.00 - —
bgs., l.c.l., New York whse ton.195.00 - —
Blood, dried, 16-16½% ammonia New York unit-ton. 6.50 - —
high-grade, unground, 16-17% ammonia bgs. Chicago. unit-ton. 7.25 - —
Blood, dried, soluble, bgs., c.l lb. .13 - .14
bgs., t.l. lb. .15 - .17
bgs., l.t.l. lb. .15½- .35¼
Bloodroot bls. lb. .48 - .50

Blue Pigments

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb. 2.20 - 2.75
Peruvian, dms. lb. 1.95 - 2.55
BON acid maroons pure, bbls lb. 1.75 - —
Resinated, bbls. lb. 1.50 - —
Bone black, dms., l.c.l. frt. alld lb. .18 - .22¾
Pacific coast bone black prices 2c. per lb. higher.
Bonemeal, steamed, works, E ton.65.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip. (see Calcium phosphate, tribasic)
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.87.50 - —
bgs., ton lots, ex whse. New York or Chicago ton.143.75 - —
bgs., smaller lots, same basis. ton.148.75 - —
bulk, c.l., works ton.78.50 - —
gran., decahydrate, 99½%, bgs., c.l. works ton.47.50 - —
bgs., ton lots, ex whse, New York or Chicago ton.103.75 - —
bgs., smaller lots, same basis. ton.108.75 - —
bulk, c.l., works ton.41.00 - —
pentahydrate, 99½%, bgs., c.l., works ton.63.00 - —
bgs., ton lots, ex whse, New York or Chicago ton.119.25 - —
bgs, smaller lots, same basis. ton.124.25 - —
bulk, c.l., works ton.56.50 - —
powd., 99½%, bgs., c.l., works. ton.52.50 - —
bgs., ton lots, ex whse, New York or Chicago ton.108.75 - —
99½%, bgs., smaller lots, same basis ton.113.75 - —
USP borax $15 per ton higher.
Bordeaux powder, tribasic, bgs., c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton.335.00 - —
bgs., ton lots ex whse, New York or Chicago ton.390.00 - —
bgs., smaller lots, same basis. ton.415.00 - —
cryst., 99.9%, bgs., c.l., works. ton.133.50 - —
bgs., ton lots, ex whse, New York or Chicago ton.190.75 - —
bgs., smaller lots, same basis. ton.195.75 - —
dms., c.l., works ton.158.00 -178.00
dms., ton lots, ex whse, New York or Chicago ton.215.25 -235.25
dms., smaller lots, same basis. ton.220.25 -240.25
gran., 99.9%, bgs., c.l., works. ton.108.50 - —
bgs., ton lots, ex whse, New York or Chicago ton.165.75 - —
bgs, smaller lots, same basis ton.170.75 - —
dms., c.l., works ton.133.00 -153.00
dms., ton lots, ex whse, New York or Chicago ton.190.25 -210.25
dms., smaller lots, same basis ton.195.25 - —
bulk, c.l., works ton.102.50 - —
powd., 99.9%, bgs., c.l., works. ton.113.50 - —
bgs., ton lots, ex whse, New York or Chicago ton.170.75 - —
bgs., smaller lots, same basis. ton.175.75 - —
dms., c.l., works ton.138.00 -158.00
dms., ton lots, ex whse, New York or Chicago ton.195.25 -215.25
dms., smaller lots, same basis. ton.200.25 -220.25
USP boric acid $25 per ton higher.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride gas, cyls, truckload, works lb. .62 - —
cyls., l.t.l., works lb. .70 - —
Brazilwood extract (see Hypernic extract).
Brimstone (see Sulfur).
Broenner's acid, bbls. lb. 1.76 - —

Bromine purif. cs., c.l., t.l., dlvd. E of Rockies..lb. .32 - —
e.s., l.c.l., same basis.....lb. .34 - .39
ret. dms. c.l., t.l., dlvd. E of Rockies..lb. .31 - —
ret. dms. l.c.l., same basis..lb. .31 - .34
tanks, same basis.....lb. .31½- —
Bromochloromethane dms., c.l., frt. equald..lb. .48 - —
dms., l.c.l., same basis.....lb. .50 - —
tanks, same basis.....lb. .47 - —
Bromoform, pharmaceutical grade, 100-lb. cbys..lb. 1.80 - 1.90
Bromstyrol, bots. .....lb. 5.45 - 5.70
Brucine, cns., 100-oz. lots.....oz. 1.26 Nom.
Brucine sulfate, NF, cns., 100-oz. lots..oz. 1.20 Nom.
Buchu leaves, bls. .....lb. 1.20 - —

Brown Pigments

Brown pigment quotations are listed individually. For example, prices on Brown, iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy..lb. .21 - —
cyls., l.c.l., refy.....lb. .22 - —
tanks, contract, refy.....lb. .14½- .15
Butane, indust., tanks, group 3..gal. .04 - —
n-Butyl acetate, ferment, dms., c.l., frt. alld..lb. .17 - —
dms., l.c.l., same basis.....lb. .18 - —
tanks, same basis.....lb. .14½- —
Syn., dms., c.l., dlvd. E.....lb. .17 - —
dms., l.c.l., same basis.....lb. .18 - —
tanks, same basis.....lb. .14½- —
sec-Butyl acetate syn., dms., c.l., dlvd.E..lb. .14¾- —
dms., l.c.l., same basis.....lb. .15¾- —
tanks, same basis.....lb. .12¼- —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E. lb. .57½- —
dms., l.t.l., same basis.....lb. .58½- —
tanks, same basis.....lb. .55 - —
Prices of n-butyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Butyl alcohol, ferment, dms., c.l., frt. alld..lb. .17 - —
dms., l.c.l., frt. alld.....lb. .18 - —
tanks, frt. alld .....lb. .14½- —
Syn., dms., c.l., dlvd.....lb. .17 - —
dms., l.c.l., dlvd.....lb. .18 - —
tanks, dlvd .....lb. .14½- —
sec-synthetic, dms., c.l., dlvd..lb. .15 - —
dms., l.c.l., dlvd.....lb. .16 - —
tanks, dlvd.....lb. .12½- —
tert-synthetic, dms., c.l., frt. alld. dlvd. E lb. .14¾- —
dms., l.c.l., same basis.....lb. .15¾- —
tanks, same basis.....lb. .12¼- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works..lb. .37½- —
dms., l.c.l., works.....lb. .38¼- —
n-Butyl ether dms., c.l., works..lb. .35¼- —
dms., l.c.l., works.....lb. .36 - —
tanks, works.....lb. .33¼- —
Butyl lactate, dms., c.l., frt. alld. E. of Rockies..lb. .42½- —
dms., l.c.l., same basis.....lb. .43½- —
tanks, same basis.....lb. .40 - —
Butyl laurate, dms., works.....lb. .37½- —
Butyl methacrylate, dms., c.l., t.l., works..lb. .55 - —
dms., l.c.l., works.....lb. .55½- —
Butyl oleate, refd., dms., l.c.l., works..lb. .32 - —
Butyl phenylacetate, dms.,..... lb. 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi..lb. .27¼- —
dms., l.c.l., same basis.....lb. .28¼- —
Butylamine (see Mono-, Di- and Tri-butylamine).
6-tert-Butyl-m-cresol, dms., c.l., works..lb. .53 - —
dms., l.c.l., works.....lb. .56 - —
tanks, works.....lb. .54 - —
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
p-tert-Butylphenol, bgs., c.l., works, lb. .27½- —
bgs., l.c.l., works.....lb. .28½- —
Butyraldehyde, dms., c.l., dlvd..lb. .22 - —
dms., l.c.l., dlvd. .....lb. .23 - —
tanks, dlvd. .....lb. .19½- —
Butyric acid, 99%, dms., c.l., frt. equald..lb. .34 - —
dms., l.c.l., same basis.....lb. .34½- —
tanks, same basis.....lb. .32½- —
Butyric ether (see Ethyl butyrate).

C

Cacao butter (see Cocoa butter).
Cadmium CP red, dark shade, bbls., frt. alld. E. of Rockies..lb. 5.45 - —
Light shade, bbls., same basis..lb. 4.55 - —
Medium shade, bbls., same basis. lb. 5.20 - —
Medium light shade, bbls., same basis..lb. 4.80 - —
Orange-red shade, bbls., same basis..lb. 4.20 - —
Yellow, all shades, bbls., frt. alld. E. of Rockies..lb. 3.75 - —
Cadmium iodide, 25-lb. fib. dms..lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, cs., dlvd..lb. 1.45 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld. E. of Rockies..lb. 1.61 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.91 - —
light shade, bbls., same basis..lb. 1.68 - —
Medium shade, bbls., same basis. lb. 1.83 - —
Medium light shade, bbls., same basis..lb. 1.76 - —
Maroon shade, bbls., same basis lb. 1.99 - —
Cadmium-selenide lithopone, maroon, bbls., frt. alld. E. of Rockies. lb. 2.72 - —
Cadmium-selenide lithopone, maroon, dark shade, bbls., same basis..lb. 2.77 - —
Orange, bbls., same basis.....lb. 1.54 - —
Red, orange-red shade, bbls., same basis..lb. 1.62 - —
Red, light shade, bbls., same basis. lb. 1.84 - —
Red, medium-light shade, bbls., same basis..lb. 1.96 - —
Red, medium shade, bbls., same basis..lb. 2.19 - —
Red, dark shade, bbls., same basis. lb. 2.52 - —
Cadmium-selenide lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.15 - —
Caffeine, NF, citrated, dms., 100-lb. lots or more..lb. 2.70 - —
Caffeine, USP, nat., cryst., anhyd., 100-lb. lots or more..lb. 2.50 - —
cryst., hydrous, dms., 100-lb. lots or more..lb. 2.33 - —
Syn., cryst., anhyd., dms., 100-lb. lots or more..lb. 2.50 - —
cryst., hydrous, dms., 100-lb. lots or more..lb. 2.33 - —
Cajuput oil, native, cns.....lb. 1.75 - 2.55
Redist., USP, cns .....lb. 1.90 - 2.10
Calamine, USP, dms. .....lb. .34 - —
Calamus oil, bots.....lb. 12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works..gram. .54 - —
1-10 kilo lots .....gram. .55 - —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted....lb. 4.00 - —
Calcium arsenate, dealers, bgs., c.l., frt. alld..lb. .09 - .09¼
bgs., l.c.l., same basis.....lb. .10 - .10½
Calcium bromide, NF, 100 lbs. or more..lb. .97 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd..ton.149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works..ton.10.50 - —
chalk, whiting, 325 mesh, bgs., c.l., works..ton.32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works..ton.30.00 - —
10 to 20 microns, bgs., c.l., works..ton.17.00 -18.00
Calcium carbonate, precip., dense, bgs., c.l., works..ton.30.00 -35.00
bgs., l.c.l., works.....ton.45.00 -50.00
medium, bgs., c.l., works..ton.36.00 - —
bgs., l.c.l., works.....ton.48.00 - —
Calcium carborate, precip., surface treated, bgs., c.l., works..ton.40.00 -42.00
bgs., l.c.l., works.....ton.55.00 -57.00
ultrafine, bgs., c.l., works.ton.117.50 -167.50
bgs., l.c.l., works.....ton.137.50 -187.50
Calcium chloride, flake, 77-80%, paper bgs., c.l., works, frt. equald..ton.31.00 - —
Conc., flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald..ton.37.80 - —
paper bgs., c.l., works..ton.37.00 - —
Purif., gran., dms. .....lb. .27 - —
USP, gran., dms. .....lb. .32 - —
Liquor, 40%, tanks, frt. equald. ton.12.50 - —
Solid, 73-75%, dms., c.l., frt. equald..ton.29.50 - —
dms., l.c.l., works, frt. equald. ton.36.00 -73.00
Calcium chromate, bgs., frt. equald. lb. .29½- .30
Calcium cyanide, dms., c.l., dlvd. E. of Rockies..lb. .20 - —
dms., l.c.l., same basis.....lb. .24 - .55
Calcium cyclamate, 100-lb. dms .lb. 2.93 - —
Calcium gluconate, AA, dms..lb. .76 - —
USP, dms. .....lb. .67 - .69
Calcium hydride, lump, dms., works. lb. 2.20 - 3.00
Calcium hypochlorite, high test, 45-lb cs., dlvd. E. of Rockies. cs.22.95 -25.10
100-lb. dms., same basis....dm.30.80 -34.50
Calcium hypophosphite, dms., 1,000-lb lots lb. 1.28 - —
Calcium iodide, jars..... lb. 4.52 - —
Calcium lactate, NF, dms., 10,000-lb. lots or more, works..lb. .26 - .49
smaller lots, works.....lb. .41 - .45
Calcium mandelate, USP, dms., works lb. 2.10 - 2.25
Calcium naphthenate, liq., 4% Ca., dms., frt. equald..lb. .30 - —
Calcium pantothenate, dms., frt. adjusted..kilo.35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenolsulfonate, dms. .lb. .99 - 1.04
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald. 100 lbs. 8.23 - —
bgs., l.c.l., frt. equald..100 lbs. 9.00 - —
Feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton.83.25 - —
bgs., c.l., t.l., f.o.b. Texas City works..ton.77.70 - —
bgs., l.c.l., frt. equald..ton.93.25 - —
21% P., bgs., c.l., t.l., frt. equald..ton.94.50 - —
bgs., l.c.l., frt. equald..ton.104.50 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bg., c.l. prices
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis, 100 lbs. 7.95 - —

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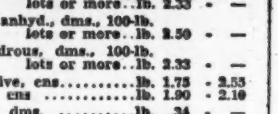
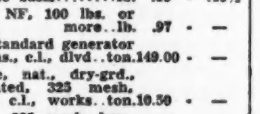
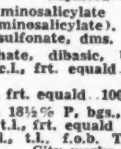
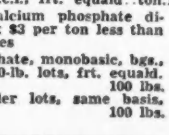
anywhere
anytime


Tank Car
60,000 and 100,000 lbs. net weight


Tank Truck
14,000 lbs. net weight


Monel Drum
225 lbs. net weight


Glass Bottle
6½ lbs. each
8 a case

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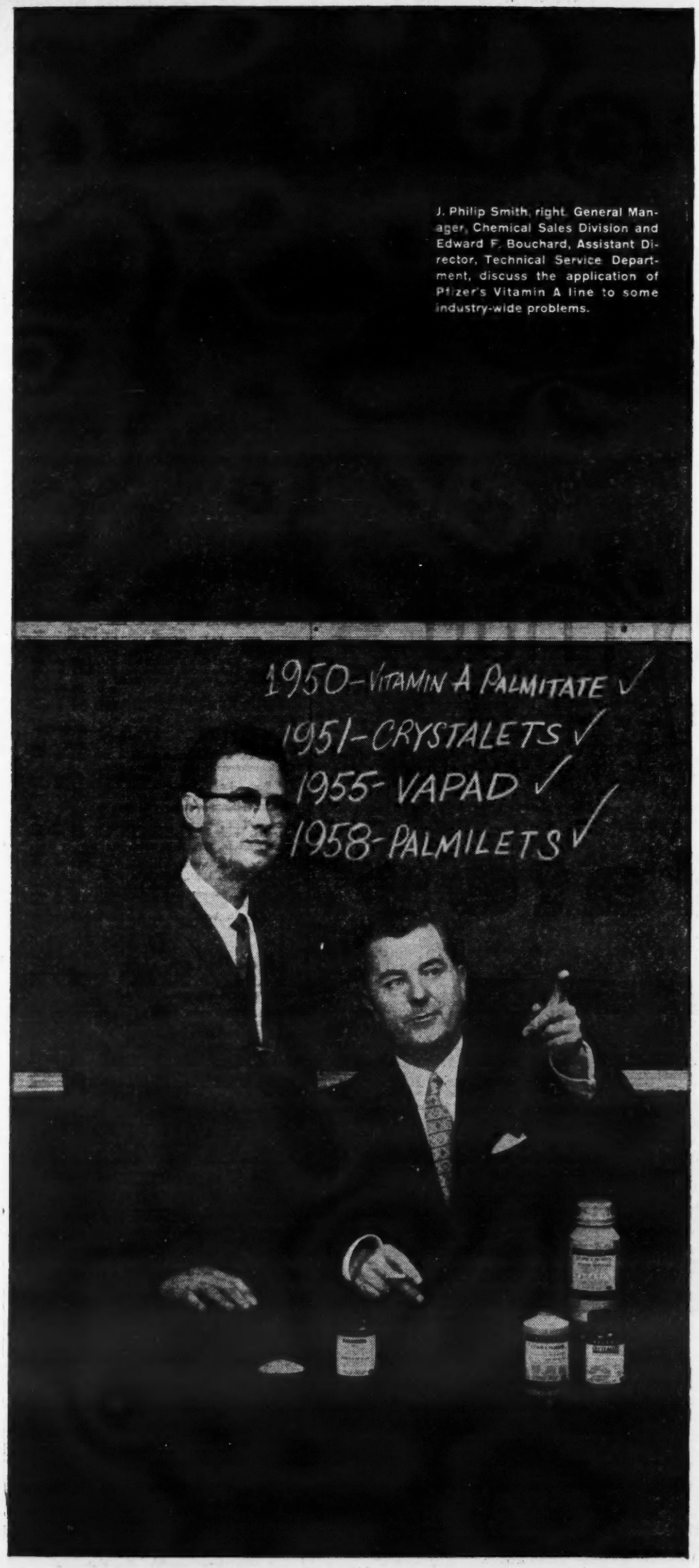
MC
C-58-T *Reg. U.S. Pat. Off.

Calcium phosphate, tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 • —
bgs., l.c.l., frt. equald. 100 lbs. 10.00 • —
Calcium phytate bgs., works ... lb. .50 • —
Calcium resinate precip, dms ton lots, frt. alld., works lb. .36¼- —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 • —
bgs., l.c.l., works ..... lb. .06½- —
Calcium silicate, paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. ..... lb. .39 • —
ctns., l.c.l. ..... lb. .40 • .44
Calcium sulfate (see Gypsum)
Calomel, NF X, powd., 100-lb. dms. lb. 5.42 • —
Camphene 46° m.p., dms. incl., c.l., works lb. .15 • —
dms. incl., l.c.l., same basis lb. .16½- —
tanks, same basis ..... lb. .12½- —
Camphene, chlorinated 67-69% (see Toxaphene)
Camphor monobromated NF dms., kgs lb. 3.63 - 3.70
Camphor, nat., USP powd. cs., 100-lb. lots lb. .60 • .65
tablets, 1-oz. cs. ..... lb. .85 • .90
USP, gran., powd. bbls., 2,000-lb. lots lb. .59 • —
Syn., USP, gran., powd., bbls., 1,000-lb. lots lb. .60 • —
bbls., smaller lots ..... lb. .61 • —
tablets, ctns., 1,000-lb. lots lb. .85 • —
ctns. 500-lb. lots ..... lb. .86 • —
ctns. smaller lots ..... lb. .87 • —
tech., 1 bbl. or more ..... lb. .48 • —
Camphor oil, sassafrassy, dms. .lb. .40 • .65
White, dms. ..... lb. .29 • .50
Cananga oil, native, cns. ..... lb. 7.25 - 8.00
Rectified, cns. ..... lb. 9.55 -11.25
Candelilla wax, crude, bgs. .... lb. .53 • .54
Refd., bgs. ..... lb. .59 • .61
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. ..... lb. 2.00 - 2.05
powd., bxs. ..... lb. 2.25 - 2.30
Russian, bgs. ..... lb. 2.75 • —
powd., bxs. ..... lb. 3.00 - 3.25
Capric acid, CP, dms. ..... lb. .28½- .31
tanks ..... lb. .26 • —
Capryl alcohol, 85% dms., c.l., and t.l., works .lb. .19 • —
dms., l.t.l., same basis ..... lb. .19½- —
tanks, frt. equald ..... lb. .16½- —
Sec. 92-99%, dms., c.l. ..... lb. .22 • —
dms., l.c.l. ..... lb. .23 • —
tanks ..... lb. .19½- —
Caprylic acid, dms. ..... lb. .28½- .31
tanks ..... lb. .26 • —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 - 4.75
NF, from African pepper, dms lb. 4.50 - 5.25
Caraway, oil, dms. ..... lb. 2.75 - 3.50
Caraway seed, Dutch, bgs. ..... lb. .11¼- —
Polish, bgs. ..... lb. .11 • —
Carbazole, 97%, bbls. ton lots, works lb. 1.05 • —
Carbon black, channel, rubber, beads, bulk, c.l., works .lb. .07¼- —
bgs., c.l., works ..... lb. .07¾- —
bgs., l.c.l., works ..... lb. .14½- —
Furnace, fast extruding, bgs., c.l., works .lb. .06¾- —
ctns., l.c.l., whse. ..... lb. .12½- —
high abrasion, bulk, c.l., works. lb. .07¼- —
bgs., c.l., works ..... lb. .07¾- —
bgs., l.c.l., dlvd. or whse lb. .13½- —
high modulus, bgs., c.l., works. lb. .06¼- —
ctns., l.c.l., whse. ..... lb. .12 • —
semi-reinforcing, bgs. c.l., works. lb. .05¾- —
bgs., ctns., l.c.l., whse .... lb. .11½- —
Carbon black, pigment, high color beads, ctns., c.l., works .lb. .72 • —
ctns., l.c.l., dlvd. or whse .lb. .79 • —
medium color, uncompressed, bgs., c.l., works .lb. .13½- —
bgs., l.c.l., dlvd. or whse. .lb. .21 • —
Carbon dioxide indust. wholesale, bulk, dlvd., Metropolitan area .ton. 73.00 -115.00
50-lb. cyls., dlvd. ..... lb. .09 • .11
Solid, bulk, wholesale, works .ton. 85.00 • —
Carbon disulfide, 55-gal. dms. c.l., works, frt. equald to competitive points .lb. .07 • —
55-gal. dms. l.c.l., same basis .lb. .08½- .09
5-gal. dms., 30 dms. to c.l., same basis lb. .13 • —
5-gal. dms., less than 30 dms., same basis .lb. .16 • —
tanks, dlvd. ..... lb. .0545- —
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. .lb. .12¾- —
dms., l.c.l., frt. alld. .... lb. .15¼- —
Carbon tetrachloride, tech., consumers, dms., c.l., t.l., frt. alld. lb. .11¾- —
dms., l.c.l., l.t.l., frt. alld .lb. .14¼- —
tanks, frt. alld. ..... lb. .10¾- .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb. lots, works .lb. 4.90 - 4.25
dms., smaller lots, works .... lb. 4.10 - 4.75
Cardamom oil, NF, bots. ..... lb. 45.00 -55.00
Cardamom seed, bleached, "A" .lb. 2.95 • —
Bleached, "B" ..... lb. 2.80 • —
Decorticated Alleppey, cs .... lb. 2.85 • —
Guatemala, cs. ..... lb. 2.75 • —
Green, Alleppey, bgs ..... lb. 2.15 • —
Ceylon, bgs. ..... lb. 2.25 • —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. ....lb. 16.80 • —
bulk, smaller lots, dlvd. ..... lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots .lb. .68 • .69
North country, No. 2, crude, bgs., ton lots .lb. .76 • .77
refd., pure, ton lots ..... lb. .92 • .93
North country, No. 3, Ceara, crude, bgs., ton lots .lb. .70 • .72
Ceara, refd., pure, bgs., ton lots .lb. .79 • .80
Parnahyba, crude, bgs., ton lots .lb. .71 • .73
Parnahyba, refd., pure, bgs., ton lots .lb. .79 • .80
Yellow, No. 1, Ceara, bgs., ton lots .lb. 1.20 • 1.22
Parnahyba, bgs., ton lots .lb. 1.22 • 1.24
Powdered carnauba wax, 20 to 100 mesh, 8c. higher.
Carotene, tech., 1,350,000 A units per gram, tins 5-10 kilo lots, dlvd gram. .24½- —
in carrot oil, 5,000,000 to 6,000,000 A units per lb., dms., works million units. .12 • —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units .174 • —
b-Carotene in vegetable oil, semi-solid suspension, 400,000 A units per gram. cns kilo. 69.60 • —
Liquid in vegetable oil, 500,000 A units per gram., cns kilo. 87.00 • —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram., cns. gram. .29 • —
Carvol, bots. ..... lb. 5.00 - 5.40
Cascara sagrada bark, bulk ..... lb. .30 • —
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works .lb. .56 • —
edible, acid, precip., 80 mesh, bgs., 10,000-lb lots or more, works lb. .64 • —
Imp., inedible, acid-precip. grd., Argentine, bgs., c.l., ex-dock, Eastern seaports ..... lb. .19 - .19¼
New Zealand, bgs., c.l., same basis lb. .24 - .24½
Cashewnut shell liquid, treated dms., c.l., Newark, N. J. . lb. .22 • —
dms., ton lots, same basis .. lb. .23 • —
dms., dm. lots, same basis lb. .25 • —
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia, Padang, "A," bls. ..... lb. .54 • —
"B" ..... lb. .53 • —
"C" ..... lb. .52 • —
Korintje "A" ..... lb. .54 • —
"B" ..... lb. .53 • —
"C" ..... lb. .52 • —
Cassia oil (see Cinnamon leaf oil, USP).
Castor oil, dom., blown, dms., c.l. lb. .2650- —
dms., l.c.l. ..... lb. .2750- —
dehydrated, bodied, dms., c.l. lb. .2750- —
cms., l.c.l. ..... lb. .2910- —
tanks ..... lb. .2600- —
unbodied, dms., c.l. ..... lb. .2660- —
dms., l.c.l. ..... lb. .2760- —
tanks ..... lb. .2460- —
hydrogenated, bgs., ton lots .lb. .3125- —
bgs., l.c.l., dlvd. ..... lb. .3350- —
No. 1, dms., c.l. ..... lb. .2300- —
dms., l.c.l. ..... lb. .2400- —
tanks ..... .20½- —
No. 3, tech., dms., c.l. ..... lb. .22¼- —
dms., l.c.l. ..... lb. .23¼- —
tanks ..... lb. .20¼- —
Refd. and deodorized, dms., c.l. lb. .2750- —
dms., l.c.l. ..... lb. .2850- —
USP, dms., c.l. ..... lb. .2450- —
dms., l.c.l. ..... lb. .2550- —
tanks ..... lb. .2250- —
Imp., No. 1, Brazilian, tanks .... lb. .1600- —
Castor oil, sulfonated, 50%, dms., works .lb. .15 • .15¼
75%, dms., works ..... lb. .19 • .20
Castor oil acids, dehydrated, dms. lb. .44¼- .46¼
split, dms. ..... lb. .37¼- .38¼
Castor pomace, bgs., c.l., works. ton. 37.50 • —
Castoreum, nat., cns. ..... lb. 5.25 • —
Syn., cns. ..... lb. 9.00 • —
Catechol, CP, cryst., fib., dms., works .lb. 2.17½- —
Resub., dms., works ..... lb. 4.29½- —
Catnip leaves, Southern, bls. .... lb. .75 • —
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 2.85 - 3.75
Cedarwood oil, cns., dms. ..... lb. .50 • .95
Celery seed, French, bgs. ..... lb. .30 • —
Indian, bgs. ..... lb. .19½- —
Celery seed oil, bots. ..... lb. 13.00 -16.00
Cellulose acetate, flake, powd., bgs. ctns., 100-lb. lots or more, dlvd., E. lb. .35 • .45
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27%' butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 - .555
50% butyryl content, bgs., dlvd., E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb lots or more works, frt. alld .lb. .57 • —
bgs. smaller lots, same basis. lb. .59 • —
Cerium chloride 48% dms. dlvd lb. .30 • —
Cerium hydrate 74% CeO fib dms., 100-lb. lots or more lb. 1.40 • —
77%CeO fib dms. 100-lb. lots or more lb. 1.74 • —
Cerium oxalate (see Rare earth oxalate).
Cerium oxide, optical grade, bgs., 50-lb lots or more, dlvd. .lb. 1.85 - 1.98
bgs., smaller lots, dlvd ..... lb. 2.03 - 2.23
Cetyl alcohol, extra fib cns., 500-lb. lots or more .lb. .65 • .72
NF, fib cns. 140-lb lots or more. lb. .48 • —
Chalk (see Calcium carbonate).
Chamomile flowers Hungarian style, bls lb. Nom. • —
Roman, cs. ..... lb. 2.25 • —
Chamomile oil, blue Hungarian, bots .lb. 350.00 • —
Charcoal, activated, NF, fib dms. c.l., works .lb. .25 • .32
fib. dms., 5-ton lots, works .lb. .26½- .32½
fib. dms., smaller lots. works lb. .27 • .50
Charcoal, black (see Charcoal, activated).
Charcoal bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant .ton. 55.00 • —
briquets, bulk, c.l., f.o.b. plant ton. 78.00 -80.00
5-lb. paper bgs., c.l., same basis .ton. 106.00 • —
10-lb. paper bgs., c.l., same basis .ton. 96.00 • —
25-lb. paper bgs., c.l., f.o.b. plant .ton. 87.00 • —
40-lb. paper bgs. c.l., same basis .ton. 84.00 • —
Chenopodium oil, NF, cns. ..... lb. 4.55 - 5.25
Chestnut extract, Imp. solid, 60% tannin, bgs., ex dock .lb. .0855- —
powd., 68% tannin, bgs., ex dock lb. .0969- —
Chicago acid paste, bbls. frt. alld. lb. 3.21 • —
Chinawood oil (see Tung oil).
Chloral, tech, 94% min., dms., c.l., works .lb. .23 • —
dms., l.c.l., works ..... lb. .24 • —
tanks, multiple units, 5 cars, works .lb. .21 • —
Chloral hydrate, USP, jars, 1,000-lb lots .lb. 1.00 • —
jars, 500-lb. lots. ..... lb. 1.03 • —
jars, 100-lb lots or less ..... lb. 1.05 • —
Chlordan, agricultural dms., c.l., frt. alld .lb. .65 • —
dms. l.c.l. 5,000 to 10,000-lb. lots, frt. alld .lb. .66 • —
Clarified, dms., c.l., frt. alld .lb. .69 • —
dms., l.c.l., 5,000-10,000-lb lots, frt. alld .lb. .70 • —
Chlorinated paraffin, 40%, dms., c.l. frt. alld .lb. .16¼- —
dms. l.c.l. 10 dms. or more, same basis .lb. .17¼- —
70%, dms., c.l., same basis .... lb. .18½- —
dms. l.c.l. 10 dms. or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works .lb. .60 • —
ctns., l.c.l., works ..... lb. .61 • —
125, 1,000 cps., ctns., c.l., works. lb. .70 • —
ctns., l.c.l., works ..... lb. .71 • —
Chlorine, liq., cyls., c.l., works, frt. equald .lb. .11 • —
cyls., l.c.l. Metropolitan area lb. .12½- .13¾
tanks, single units, works, frt. equald 100 lbs. 3.15 • —
tanks, multiple units, 5 cars, works, frt. equald 100 lbs. 4.05 • —
Chlorine, liq., tanks, multiple units, 4 cars, same basis 100 lbs. 4.23 • —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.25 - 5.75
tanks, multiple units, 1 car, same basis 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, dms., c.l lb. .23½- .25½
dms., l.c.l. ..... lb. .24½- —
tech. flake, 96-97%, dms., c.l., frt. equald .lb. .19 • —
dms., l.c.l., frt. equald .lb. .20 • —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.45 • —
m-Chloroaniline, dms., c.l., frt. alld. lb. .78 • —
dms., l.c.l., same basis ..... lb. .80 • —
tanks, same basis ..... lb. .76 • —
o-Chloroaniline, dms., c.l., frt. alld. lb. .52 • —
dms., l.c.l., same basis ..... lb. .54 • —
tanks, same basis ..... lb. .50 • —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 • —
dms., l.c.l., same basis ..... lb. .79 • —
o-Chlorobenzaldehyde, dms., t.l., works, dlvd. to N.Y. Metropolitan area .lb. 1.05 • —
dms., l.t.l., same basis ..... lb. 1.20 • —
p-Chlorobenzaldehyde, dms., l.c.l., works, dlvd. to N. Y. Metropolitan area .lb. 1.95 • —
o-Chlorobenzoic acid, fib. dms., t.l., works .lb. 1.10 • —
fib. dms., smaller lots, works .lb. 1.25 • —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works. lb. 2.25 • —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 • —
Chloroform, tech., dms., c.l., dlvd. E .lb. .18 • —
dms., l.c.l., same basis ..... lb. .19 • —
tanks, same basis ..... lb. .17 • —
USP, dms. ..... lb. .30 • —
2-Chloro-4-nitroaniline, paste, dlvd. E. 100% basis .lb. .81 • —
Powd. dlvd. E. 100% basis ... lb. .86½- —
4-Chloro-2-nitroaniline, powd. dlvd. E lb. .80½- —
o-Chlorophenol, dms., c.l., frt. equald .lb. .37 • —
dms., l.c.l., same basis ..... lb. .38 • —
p-Chlorophenol, dms., c.l., frt. equald .lb. .37 • —
dms., l.c.l., same basis ..... lb. .38 • —
Chloropicrin, coml., bots ..... lb. 1.50 • —
cyls., 180 lbs., frt. alld ..... lb. .95 • —
cyls., 100 lbs., same basis .... lb. .97 • —
cyls., 25 lbs., same basis .... lb. 1.22 • —
Chlorosulfonic acid, dms., c.l., frt. equald .lb. .0465- —
dms., l.c.l., frt. equald ..... lb. .0515- —
tanks, frt. equald ..... lb. .0415- —
Chlorosulfonic acid, in stainless steel dms. ½c. per lb. higher
Choline bitartrate fib. dms., frt. adjusted .kilo. 2.75 - 3.00
Choline chloride fib. dms., frt. adjusted .kilo. 2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted .kilo. 2.75 - 3.00
Chrome green, CP, dark, light medium blue content 1-15%, bbls., dlvd. E. of Rockies lb. .40 • .42
blue content 16-30%, bbls., same basis lb. .40 • .42
blue content 31-45%, bbls., same basis lb. .41 • .43
blue content 45-49%, bbls., same basis .lb. .44 • .46
Reduced color, 25% ..... lb. .19 • .20
Chrome green prices 1c. higher W. of Rockies.
Chrome orange, CP, bbls., dlvd. E. of Rockies lb. .35 • —
Chrome orange prices 1c. higher W. of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .35 • —
Chrome yellow price 1c. higher W. of Rockies.
Chromic acid, 99¾% dms., c.l., works, frt. equald .lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 • .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, bbls., works .lb. .09½- —
cbys., works ..... lb. .11¼- —
Chromium fluoride, bbls., works lb. .51 • .52
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld .lb. 1.20 • —
Pure, bgs., c.l., frt. alld. ..... lb. .44½- —
bgs., l.c.l., same basis ..... lb. .45¼- —
Chromium trioxide, NF, bots ..... lb. 1.15 • —
Cinchona bark, NF, red, broken, bgs .lb. .35 • .40
NF, yellow, broken, bgs. ..... lb. .35 • .40
Cinnamic acid refd. bots. ..... lb. 2.50 • 3.50
Cinnamic alcohol, bots. ..... lb. 1.90 • 2.20
Cinnamic aldehyde, dms. ..... lb. .95 • 1.25
Cinnamon, Ceylon No. 2, bgs... lb. .72 • —
Ceylon, "0000," bgs ..... lb. .96 • —
Cinnamon bark oil, bots ..... lb. 36.00 -70.00
Cinnamon leaf oil, crude, dms .lb. 1.35 • 2.00
USP (Cassia), cns., dms ..... lb. 8.50 -13.50
Citral, CP, bots. ..... lb. 3.65 • 3.85
Extra, bots. ..... lb. 4.85 • 5.05
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l .lb. .29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt .lb. .30 • .30½
bgs., dms., smaller lots .lb. .30½- .31
hydrous, fine gran. bgs., dms., c.l. .lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt .lb. .28 • .28½
bgs., dms., smaller lots .lb. .29 • .29½
Powdered citric acid ½c. higher
Citronella oil, Ceylon, dms. ..... lb. .58 • 1.00
Java-type, dms. ..... lb. .57 • 1.00
Citronellal, bots. dms. ..... lb. 1.90 • 2.10
Citronellol, bots., dms ..... lb. 2.60 • 3.75
Civet, artif., bots. ..... lb. 13.75 -15.00
Nat., bots. ..... oz. 8.50 -15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn .ton. 17.50 -21.50
crushed, shed moisture, bulk, c.l., Tenn .ton. 8.00 -11.00
Imp., airfloated, bgs., c.l., Atl. port .net-ton. 42.00 -45.75
lump, bulk, Atl. port .net-ton. 29.50 -35.75
Clay, China, dom., dry-grd., air-floated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton. 10.00 -12.00
Georgia, bgs., l.c.l. works. ton. 15.50 • —
300 mesh bgs., c.l., Georgia, works .ton. 13.50 -14.50
bgs., l.c.l., ex-whse .... ton. 35.00 -36.00
Imp., white, lump, bulk, c.l., ex dock, Philadelphia, Portland, Me. .long-ton. 20.00 -35.00
powd., bgs., c.l., ex dock. net-ton. 50.00 • —
bgs., l.c.l., ex whse. .net-ton. 60.00 -70.00
Cleve's acid, mixed, bbls. ..... lb. 1.05 • —
Cloves, Madagascar, bgs. ..... lb. .41½- —
Zanzibar, bgs. ..... lb. .45 • —
Clove bud oil, USP, dms. ..... lb. 2.60 - 3.35
Clove leaf oil, crude, dms ..... lb. 1.00 - 1.35
CMC, crude, 96.4% low or medium vis. bgs. or fib. dms., 23,000 lbs., dlvd. E., 100% basis lb. .41½- —
CMC, crude, 96.4% low, or medium vis., bgs., or fib. dms., less than 23,000 lbs. dlvd. E., 100% basis lb. .43½- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis .lb. .43½- —
CMC, purif. high vis. (see Cellulose gum).
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld lb. .57 • —
bgs., smaller lots, same basis. lb. .59 • —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.
Coaltar, crude, resale for soins., tanks, works ..... gal. .16 • —
Refd., resale, indust., dms., c.l., ex whse .gal. .35 • —
dms., l.c.l., ex whse. .gal. .39 • —
tanks, works ..... gal. .20½- —
Coaltar pitch, aluminum, bulk, works ton. 44.00 • —
Carbon and indust., bulk, works. ton. 44.00 • —
Core, bulk, works ..... ton. 40.50 • —
Fiber, bulk, works ..... ton. 48.00 • —
Roofing, 140-155°F., Federal Specification RP-381 Type 1, tanks, works ton. 41.00 • —
Cobalt acetate 23.7% Co. dms. dlvd. lb. 1.10 • —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies .lb. 4.90 • —
Cobalt blue prices 1c. higher W. of Rockies.
Cobalt blue imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.57 • —
Cobalt chloride, 24.2% Co., dms., dlvd lb. 1.05 • —
Cobalt hydrate 60-61% Co., dms., dlvd. lb. 2.20 • —
Cobalt linoleate, fused 8½% Co., dms. lb. .71½- —
Liq., 6% Co., dms. ..... lb. .37½- —
Cobalt metal, 97-99%, kgs., ex whse. lb. 2.00 • —
Cobalt naphthenate liq., 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate, 20.1% Co. bbls. dlvd. lb. .85 • —
Cobalt oxide, black, 72½-73½% Co., kgs lb. 1.52 • —
70-71% Co., kgs. ..... lb. 1.48 • —
Cobalt phosphate, powd., 32.1% Co., kgs., dlvd lb. 1.43 • —
Cobalt resinate, fused, 3% Co. dms. lb. .29½- —
Cobalt sulfate, cryst., 21% Co, dms., dlvd lb. .69 • —
Cobalt sulfate, monohydrated, 33% Co, dms., dlvd .lb. 1.17 • —
Cobalt tallate, 6% Co, dms., dlvd. lb. .44 • —
Cocaine, USP, cns., 100-oz. lots .oz. 17.80 • —
Cocaine hydrochloride, cns., 100-oz. lots .oz. 13.75 • —
Cocillana bark, bls. ..... lb. .22 • —
Cocoa butter, bgs. ..... lb. .88 • .93
Coconut oil, crude, tanks, New York lb. .15¾- —
tanks, Pac. coast ..... lb. .15 • —
Refd., deodorized, dms., l.c.l. lb. .24 • —
Coconut oil acids, dist., dms. ... lb. .23½- .26
tanks ..... lb. .21 • —
double dist. (stripped), dms. lb. .24½- .27
tanks ..... lb. .22 • —
Cod oil, dms., spot ..... lb. .09¾- .09⅛
Codeine, NF, cns., 100-oz. lots .oz. 13.25 • —
Codeine hydrochloride, cns., 100-oz. lots .oz. 11.75 • —
Codeine phosphate, USP, cns., 100-oz. lots .oz. 10.25 • —
Codeine sulfate, USP, cns., 100-oz. lots .oz. 10.75 • —
Codliver oil, USP, dms. ..... gal. 1.40 - 1.45
Cohosh root, black, bls. ..... lb. .20 • .22
Blue, bls. ..... lb. .20 • .22
Colchicine, USP, bots. ..... oz. 27.50 -31.00
Colchicum root, bls. ..... lb. .35 • —
Colchicum seed, bgs. ..... lb. .55 • —
Collodion, USP, dms. ..... lb. .32½- —
Flexible, dms. ..... lb. .34 • —
Colocynth pulp, bls. ..... lb. .72 • —
Colombo root, bls. ..... lb. .15 • .18
Condurango bark, bls. ..... lb. .26 • —
Congo copal gum, No. 1, bgs. ... lb. .25 • .26
No. 2 bgs. ..... lb. .22 • .24
No. 3, bgs. ..... lb. .15¾- .17
Copaiba balsam, cns., dms. ..... lb. .40 • .80
Copaiba oil, cns. ..... lb. 1.75 • 2.50
Copper acetate, bbls., c.l., works. lb. .53 • —
bbls., l.c.l., works ..... lb. .54 • —
Copper carbonate, 55%, bgs., c.l., works .lb. .3190- —
bgs., l.c.l., works ..... lb. .3340- —
Copper chloride, cupric, anhyd., dms., works .lb. .42 • .42¼
Cryst., dihydrate, dms., works, lb. .28¼- .28¾
Cryst., dried, dms., works ... lb. .36½- .37
Copper chloride, cuprous, dms., works .lb. .3680- .3960
Copper cyanide, tech., dms., 20,000-lb. lots or more .lb. .609 • —
dms., 1,000-lb. lots or more .lb. .619 • —
dms., smaller lots ..... lb. .639 • .659
Copper gluconate, dms. ..... lb. 3.20 • —
Copper hydrate, dms., c.l., frt. alld. E. of Miss .lb. .47¼- —
dms., l.c.l., same basis ..... lb. .47¾- —
Copper metal, electrolytic, dlvd. Valley basis .lb. .26½- —
Copper naphthenate, liq., 8% Cu. dms., frt. alld .lb. .26½- —
Copper nitrate, tech., cryst., dms., works .lb. .29 • .31
Copper oleate, solid, 9% Cu. dms., works .lb. .45 • —
Copper oxide, black, bbls., 100-5,000-lb. lots, works .lb. .42¾- —
Copper oxide, red, 97%, USN, Type I, bbls., 100-5,000-lb. lots. lb. .40½- —
90% USN Type II, bbls., 100-5,000-lb. lots or more, works .lb. .38½- —
Copper oxychloride, dms., c.l., works .lb. .52 • —
dms., l.c.l., works ..... lb. .53½- .53⅛



J. Philip Smith, right, General Manager, Chemical Sales Division and Edward F. Bouchard, Assistant Director, Technical Service Department, discuss the application of Pfizer's Vitamin A line to some industry-wide problems.

Question:

WHAT'S BEHIND PFIZER VITAMIN A?

Answer:

PFIZER TECHNICAL SERVICE.

How Some Tough Industry-Wide Problems Were Solved.

● **Back in 1951 the pharmaceutical industry had a problem with Vitamin A stability in dry multivitamin preparations.**

Efforts at that time to handle liquid Vitamin A in this type formulation proved extremely difficult. No way could be found that both permitted easy handling, and yet fully protected the vitamin against loss of potency through oxidation. And, in most cases special equipment was required.

At this point, Pfizer Technical Service entered the picture. This is an organization that is very mindful of the industry's troublesome problems. Consequently, the Pfizer Technical Service men often bring such problems back to be worked on by the Pfizer research and production teams.

This was the case in 1951 when Pfizer offered to the pharmaceutical industry a dry free-flowing granular form of Vitamin A in an oxidation-resistant matrix of gelatin and sugar. The product, known as Pfizer **Vitamin A Crystalets®**, solved the industry problem of Vitamin A stability in dry multivitamin formulations. (**Vitamin A and D Crystalets** also available.)

The desire to formulate bulk Vitamin A products that will help solve specific industry problems has continued through the years. Consequently, *Pfizer now has the most complete line of Vitamin A products for your needs.* Here are some more of them:

VAPAD®—An isomerized form of Vitamin A to solve the problems of instability in aqueous dispersions.

PALMILETS*—A Vitamin A Palmitate protected with gelatin to solve the stability problem in high moisture products.

VITAMIN A PALMILETS TYPE M & W—Two new dry dispersible forms of protected Vitamin A Palmitate. One is readily soluble in plain tap water, the other (Type M) in ice water. Also, *Vitamin A & D Palmilets Type M & W* now available.

VITAMIN A PALMITATE—A product to solve the need for an extremely stable form of liquid Vitamin A.

There are stable, economical Pfizer Vitamin A forms to suit all your needs

*TRADE MARK

Pioneer in the Manufacture of Vitamins **Pfizer**

CHAS. PFIZER & CO., INC., Chemical Sales Division
630 Flushing Ave., Brooklyn 6, N. Y., Branch Offices: Chicago, Ill.; San Francisco, Calif.; Vernon, Calif.; Atlanta, Ga.; Dallas, Tex.

Copper Quinolinolate—Degras

Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate, dms lb. 1.14 1.15
Copper resinate, precip, dms., frt. alld lb. .36½- —
Copper sulfate, CP, gran., dms., works lb. .1805- —
Cryst., 99%, bgs., c.l., works. 100 lbs.11.05 - —
bgs., l.c.l., same basis 100 lbs.11.55 -14.05
Copper sulfate, monohydrated, 35%, dms., c.l., works 100 lbs.21.20 - —
dms., l.c.l., works 100 lbs.21.95 - —
Copper sulfate tribasic, distributors, bgs., c.l., same basis, 100 lbs.25.15 - —
bgs., l.c.l., same basis 100 lbs.26.15 -29.15
Copper undecylenate, dms. lb. 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ton.207.00 - —
Pac. ports, c.i.f. ton.202.00 - —
Coriander oil, USP, bots. lb. 8.50 -11.50
Coriander seed, Moroccan, bgs lb. .09 - —
Rumanian, bgs. lb. .07 - —
Yugoslavian, bgs. lb. .08½- —
Corn oil, crude, tanks, works lb. .12½- —
Foots (soapstock) acid 95%, tanks, New York lb. .04¾- —
Refd., salad, dms. lb. .1823- —
tanks lb. .1623- —
Corn oil, acids, dist., dms. lb. .17¼- .20
tanks lb. .14¾- —
Corn starch (see Starch, corn).
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min 100 lbs. 7.33 - —
paper bgs., l.c.l. 100 lbs. 7.58 - —

Corn syrup, 42° Be. non-ret. dms., c.l 100 lbs. 7.31 - —
non-ret. dms., l.c.l 100 lbs. 7.46 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, kilo or more gram. 1.90 - 2.00
Costus oil, bots. oz. 6.00 - —
Cottonseed meal, 41%, bgs., Memphis ton.53.50 -54.00
Cottonseed oil, crude, tank South, East lb. .11¼- —
tanks, Valley lb. .10⅞- —
tanks, Texas, Lubbock lb. .10½ Nom.
tanks, Texas, Waco lb. .10⅝ Nom.
Foots (soapstock) acid 95%, tanks, New York lb. .04 - —
Refd., salad, dms. lb. .16⅝- .17
tanks lb. .14⅝- —
Cottonseed oil acids, dist., dms lb. .16¾- .19¼
tanks lb. .14¼- —
Cottonseed pitch, raw, dms., works. lb. .03 - .03¼
tanks, same basis lb. .02¾- —
Coumarin, NF, cryst., dms. lb. 3.60 - 3.70
Cramp bark, NF, bls. lb. .85 - .90
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots. cbys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .20 - —
crude, soln. 80%, tanks, works. gal. .192 - —
refd., dms., c.l., works gal. .42 - .44
dms., l.c.l., same basis gal. .53 - .55
tanks, same basis gal .33 - .35
Creosote oil (see Creosote coaltar).

Creosote, wood, beechwood, cbys., dms., f.o.b., works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 - 1.47
Pinewood, dms. incl., c.l., works. lb. .0561- —
dms. incl., l.c.l., works lb. .0634- —
dms. incl., l.c.l., ex whse, New York lb. .0745- —
tanks, works lb. .0460- —
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 - —
Cresol, USP, non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95%, 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
2.97%, 2°C., dms., c.l., frt. equald. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —
o-Cresol 30.5°C., m.p. and over, ret. dms., c.l., frt. equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C., m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .14½- —

o-Cresol, 29°-29.9° C., m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
o-Cresol, 25-28.9°C., m.p., dms., c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd. lb. .53 - —
tanks, dlvd. lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works lb. .70 - —
dms., smaller lots, works lb. .72 - —
p-Cresyl methyl ether, cns. lb. 1.80 - 2.05
Cresylic acid, coaltar dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
Cresylic acid, coaltar, dom., meta-para content 25% or less, dms., c.l. t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis gal. 1.25 - —
tanks, frt. equald. gal. 1.00 - —
Cresylic acid, coaltar, imp., meta-para content, 25% or less, f.o.b. works, frt. equald. to competitive points, 50 dms. or more gal. 1.03½- —
less than 50 dms., same basis. gal. 1.05 - 1.15
tanks, same basis gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., l.c.l., works lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., works lb. .51 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs.13.00 - —
bgs., l.c.l., works 100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., c.l., t.l., works lb. .27 - —
Cubeb berries, NF, bgs lb. .90 - —
Powd., cs. lb. .95 - —
Cubeb oil, cns lb.12.00 -15.00
Cumene, dms., c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs lb. .35 - —
Moroccan, bgs. lb. No prices.
Turkish, bgs. lb. No prices.
Cumin seed oil, bots., cns. lb. 7.50 -15.50
Cutch extract, 55% tannin, bgs., ex dock lb. .07½- —
Cyanamide, fertilizer mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract ton.57.00 - —
pulv., 21% N, bgs., works. unit-ton. 2.85 - —
indust. grade, bgs., c.l., works.ton.75.00 - —
bgs., l.c.l., works ton.96.00 - —
indust. grade, 6-16 mesh, dms., c.l., works ton.120.00 - —
dms., l.c.l., works ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E. of Rockies gal. 1.02 - —
dms., l.c.l., same basis gal. 1.10 - —
dms., c.l., dlvd. W. of Rockies. gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .28½- —
dms., l.c.l., works, same basis. lb. .29½- —
tanks, works, same basis lb. .26 - —
Cyclohexanone, tech., dms., c.l., works lb. .34½- —
dms., l.c.l., works lb. .37 - —
tanks, works lb. .31 - —
Cyclohexylamine, dms., c.l., works. lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cyclopropane, CP, 2-lb. cyls., works. cyl.48.00 - —
8-oz cyls., works cyl.12.00 - —
Cyclopropane, USP, hospitals, cyls., 40-gal. lots gal. .42 - —
cyls., 100-gal lots gal. .41 - —
cyls., 200-gal. lots gal. .40 - —
Cypress oil, bots. lb. 5.30 - —

D

2,4-D, tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
bgs., dms., l.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis lb. .48 - .52
tanks, same basis lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works lb. .43 - —
dms., l.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum, Batavia, A/E, cs lb. No stocks.
dust, bgs. lb. No stocks.
E, bgs. lb. No stocks.
East India, Batu, bold, bgs. lb. .13¾- .15
nubs and chips, bgs lb. .08½- .09¼
black, bold, bgs lb. .14½- .16½
unscraped, bgs. lb. .13 - .14½
nubs and chips, bgs lb. .12¼- .13½
pale, chips, bgs lb. .14½- .16
nubs, bgs. lb. .17¾- .20
Siam, cs. lb. .31 - .34
Singapore, No. 1, bgs. lb. .37 - .42
No. 2, bgs lb. .31 - .34
No. 3, bgs lb. No stocks.
dust, bgs. lb. .17 - .19
seeds, bgs. lb. No stocks.
Dandelion root, bls lb. .28 - —
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - .47
fib. dms., l.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .22 - —
bgs., smaller lots, same basis. lb. .24 - —
fib. dms., c.l., same basis lb. .23 - —
fib. dms., smaller lots, same basis lb. .25 - —
Powdered DDT 1c. per pound higher.
1-Decanol, tech., dms., c.l., dlvd lb. .41 - —
dms., l.c.l., dlvd lb. .43 - —
tanks, dlvd. lb. .38½- —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½- —
dms., l.c.l., dlvd lb. .24½- —
tanks, dlvd. lb. .21 - —
Perfume grade, bots lb. 1.75 - 2.00
Decyl alcohol, normal (see 1-Decanol).
Deertongue leaves, bls lb. .45 - —
Defluorinated phosphate, feed grade, 13% P, paper bgs., c.l., t.l., works ton.51.00 - —
17% P, paper bgs., c.l., works. ton.60.00 - —
paper bgs., t.l., works ton.60.75 - —
18% P, paper bgs., c.l., t.l., works ton.69.12 - —
19% P, paper bgs., works, Houston, Tex., c.l., t.l. ton.71.50 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common, bbls lb. .10 - .12
Neutral, bbls. lb. .21 - .23

Kay-Fries

ORGANIC

inter-mediates

Concentration in this field has established Kay-Fries as a leading manufacturer of organic intermediates. This basic position is your assurance of expert technical assistance in the development of your own products as well as continuity of supply.
Should the brief list above suggest other material which might be of interest, contact us. Our experience and production facilities may save you much time. A full listing of the many Kay-Fries intermediates, including semi-commercial and experimental chemicals as well as those commercially available, may be found in our 1958 catalog—yours on request.

MALONALDEHYDE (Diacetals)
ORTHO ESTERS
CYANOACETATES
MALONATES
CHLOROACETATES (Mono and Di)

KAY-FRIES CHEMICALS, INC.
180 Madison Ave., New York 16, N. Y., MUrray Hill 6-0661

KAY-FRIES KF CHEMICALS, INC.

Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies...gal. .69½- —
dms., l.c.l., same basis....gal. .74½- .83
tanks, dlvd., same basis....gal. .53½- —

Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.

Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies..gal. .72 - —
dms., l.c.l., same basis....gal. .77 - .83
tanks, same basis.....lb. .56 - —

Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.

Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis....gal. .75½- .81½
tanks, same basis.....gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies..gal. .69 - —
dms., l.c.l., same basis....gal. .74 - .80
tanks, same basis.....gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis....gal. .73 - .79
tanks, same basis.....gal. .52 - —
SD23A, dms., l.c.l., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis....gal. .75½- .81½
tanks, same basis.....gal. .54½- —
SD23H, dms., c.l. dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis....gal. .76 - .82
tanks, same basis.....gal. .55 - —
SD29, dms., c.l., dlvd. E. of Rockies..gal. .69½- —
dms., l.c.l., same basis....gal. .74½- .80½
tanks, same basis.....gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis....gal. .73 - .79
tanks, same basis.....gal. .52 - —
SD35A, dms., c.l. dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis....gal. .76 - .82
tanks, same basis.....gal. .55 - —
SD-40, dms., c.l., dlvd. E. of Rockies..gal. .72 - —
dms., l.c.l., same basis....gal. .77 - .83
tanks, same basis.....gal. .56 - —

For anhyd. alcohol on above formulas, prices are 7c. per gal. higher.

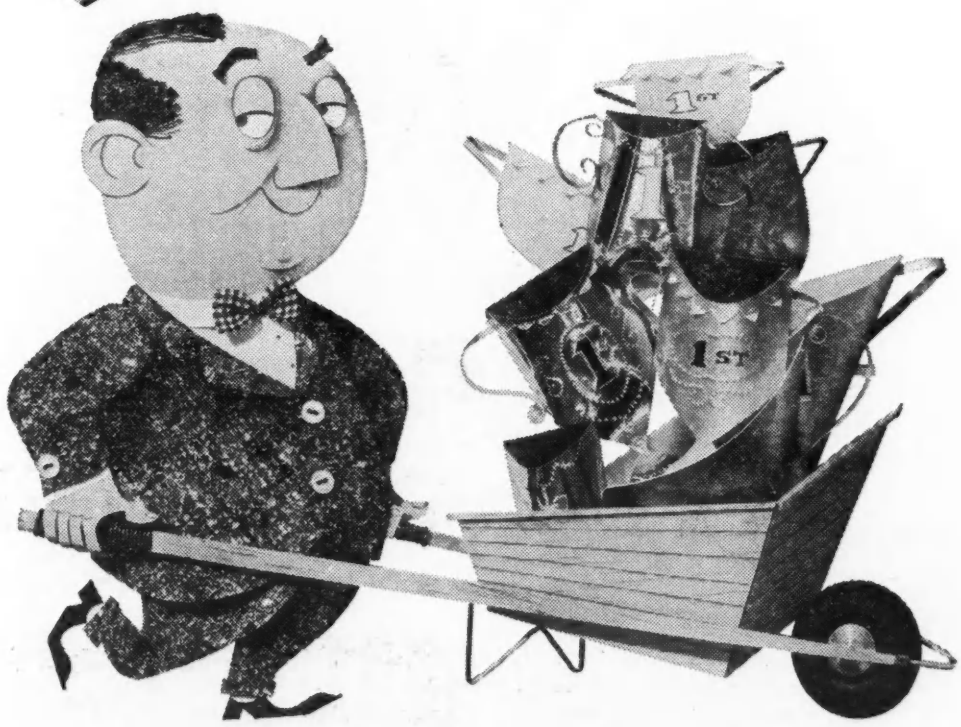
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential un tankcars is maintained.

d-Desoxyephedrine hydrochloride, dms..lb.15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms..lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.40 - —
paper bgs., l.c.l.....100 lbs. 9.55 - —
Dextrin, corn, canary dark, paper bgs., c.l..100 lbs. 9.24 - —
paper bgs., l.c.l.....100 lbs. 9.39 - —
canary light, paper bgs., c.l., 100 lbs. 9.14 - —
paper bgs., l.c.l. .....100 lbs. 9.29 - —
white, paper bgs., c.l..100 lbs. 8.98 - —
paper bgs., l.c.l .....100 lbs. 9.13 - —

Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.

Dextrin, potato, imp., bgs .... lb. .10½- .11
Dextrose, hydrated, commercial, bgs., c.l., ex whse..100 lbs. 7.60 - —
bgs., l.c.l., ex whse..100 lbs. 7.70 - —
Anhydrous, commercial, bgs., c.l., ex whse..100 lbs. 8.80 - —
bgs., l.c.l., ex whse...100 lbs. 8.90 - —
Special anhydrous, al. foil lined fib. dms., 200-lb. dms..100 lbs.14.70 - —
100-lb. dms.....100 lbs.15.20 - —
USP, dms. .....lb. .19¾- —
Diacetyl, flavor grade, bots.....lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works..lb. .32 - —
dms., l.c.l., works.....lb. .33 - —
tanks, works .....lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works..lb. .32 - —
dms., l.c.l., works.....lb. .33 - —
tanks, works .....lb. .29½- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd..lb. .15½- —
dms., l.c.l., dlvd.....lb. .16½- —
tanks, dlvd.....lb. .13 - —
Tech., dms., c.l., dlvd.....lb. .15 - —
dms., l.c.l., dlvd.....lb. .16 - —
tanks, dlvd. .....lb. .12½- —
Diallylamine, dms., c.l., dlvd....lb. .985 - —
dms., l.c.l., dlvd.....lb. .995 - —
tanks, dlvd. .....lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis.....lb. .94 - —
tanks, same basis .....lb. .91 - —
p-Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
Dibutyl fumarate, dms., c.l., t.l., frt. alld..lb. .33 - —
dms., l.c.l., l.t.l., frt. alld.....lb. .34 - —
tanks, frt. alld .....lb. .30½- —
Dibutyl maleate, dms., c.l., t.l., frt. alld..lb. .33 - —
dms., l.c.l., l.t.l., dms, frt. alld..lb. .34 - —
tanks, frt. alld .....lb. .30½- —
Dibutyl phthalate, dms., c.l., dvd. E. lb. .32½- —
dms., l.c.l., same basis.....lb. .33½- —
tanks, same basis .....lb. .30 - —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works.....lb. .68½- —
tanks, works .....lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld..lb. .65½- —
Dibutylamine, dms., c.l., dlvd..lb. .55½- —
dms., l.c.l., same basis.....lb. .56½- —
tanks, same basis.....lb. .53 - —
2,6-Di-tert-butyl-p-cresol, food grade, dms., t.l., c.l., dlvd..lb. 1.20 - —
dms., l.t.l., dlvd.....lb. 1.24 - —
Feed grade, to vitamin premix distributors, dms., c.l., t.l. dlvd..lb. 1.05 - —
dms., l.c.l., same basis.....lb. 1.07 - —
2,6-Di-tert-butyl-p-cresol, tech., dms., c.l., dlvd..lb. .91 - —
dms., l.c.l., dlvd.....lb. .95 - —
tanks, dlvd. .....lb. .86 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .31 - .32
dms., l.c.l., dlvd.....lb. .32 - .33
tanks, dlvd. .....lb. .27½- —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works.....lb. .63½- .64
tanks, works.....lb. .61 - —
Dichlorophenoxyacetic acid (see 2,4-D).
2,5-Dichloroaniline, dms., works..lb. .83 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis.....lb. .13¾- —
tanks, same basis.....lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld. E..lb. .12 - —
dms., 2,000 lbs. or more same basis. lb. .14½- —
1,4-Dichlorobutane, dms., c.l. or t.l., works..lb. .33½- —
dms., l.c.l., or l.t.l., works...lb. .34 - —
tanks, works .....lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E..lb. .15½- —
dms., l.c.l., l.t.l., same basis...lb. .16½- —
tanks, same basis .....lb. .13 - —
Dichloropentanes, dist., dms., c.l., works..lb. .05 - —
dms., l.c.l., works.....lb. .06 - —
tanks, works .....lb. .03 - —
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., l.c.l., works.....lb. .55 - —
tanks, works .....lb. .52 - —
Dicyclohexyl phthalate, fib. dms., c.l., works, frt. alld..lb. .59½- —
fib. dms., l.c.l., same basis..lb. .60 - —
Didecyl phthalate, dms., c.l., works. lb. .34 - —
dms., l.c.l., same basis.....lb. .35 - —
tanks, same basis.....lb. .31½- —
Dieldrin, dms., dlvd.....lb. 1.85 - —
dms., l.c.l., dlvd.....lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 - —
dms., l.c.l., same basis.....lb. .28 - —
tanks, same basis .....lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld..lb. .26 - —
dms., l.c.l., frt. alld.....lb. .27 - —
tanks, frt. alld .....lb. .25 - —
Diethyl barbituric acid (see Barbital).
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
dms., l.t.l., same basis .....lb. .18½- —
Diethyl carbonate, dms., c.l., f.o.b. works..lb. .47½- —
dms., l.c.l., same basis.....lb. .48½- —
tanks, same basis.....lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd..lb. .69½- —
dms., l.c.l., dlvd.....lb. .70½- —
tanks, dlvd. .....lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works..lb. .42½- —
dms., l.c.l., same basis.....lb. .43½- —
tanks, same basis.....lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .31½- —
dms., l.c.l., dlvd.....lb. .32½- —
tanks, dlvd. .....lb. .29 - —
Diethyl sulfate, dms., c.l., works..lb. .19½- —
dms., l.c.l., works.....lb. .20¼- —
tanks, works .....lb. .17½- —
Diethyl toluamide, 90-95% meta isomer, dms., c.l., t.l., works..lb. 2.30 - —
5-44 dm lots, works.....lb. 2.35 - —
1-4 dm lots, works .....lb. 2.40 - —
Diethylamine, dms., c.l., dlvd. E..lb. .52 - —
dms., l.c.l., same basis.....lb. .53 - —
tanks, same basis .....lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld..lb. .57 - —
dms., l.c.l., same basis.....lb. .58 - —
tanks, same basis.....lb. .55 - —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E lb. .17¾- —
dms., l.c.l., same basis.....lb. .18¾- —
tanks, same basis.....lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works..lb. .51½- —
dms., l.c.l., works.....lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works .....lb. .31¾- —
tanks, dlvd. E .....lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works .....lb. .31½- —
tanks, dlvd. E .....lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd .....lb. .23½- —
tanks, dlvd. E .....lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works lb. .27¼- —
dms., l.c.l., works .....lb. .28 - —
tanks, dlvd. E .....lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., dlvd .....lb. .22 - —
tanks, dlvd. E .....lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd. E .....lb. .45 - —
tanks, dlvd. E .....lb. .41½- —
Diethylstilbestrol, USP, bots., 10-kilo lots kilo.100.00 -147.50
bots., 1-kilo lot .....kilo.110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.20 - —
Digitoxin, USP, bots. ..... gram. 4.00 - 4.50
Diglycol laurate, dms .....lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 - .28
Diglycolic acid, bgs., works .....lb. .14 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works .....lb. .67 - —
tanks, works .....lb. .64 - —

ORONITE® —*a leader in petrochemicals*



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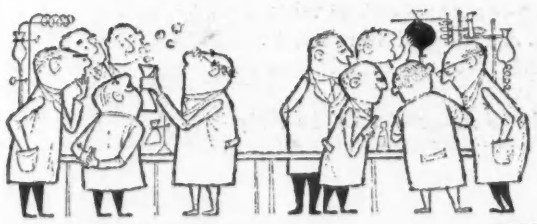

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First **PARA-XYLENE**
First **PHTHALIC ANHYDRIDE**
First **U.S. PHENOL**
First **ISOPHTHALIC**
First **POLYBUTENES**
First **U.S. NAPHTHENIC ACIDS**
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Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin hydrochloride, bulk gram. .0650- .0875
Dihydrostreptomycin sulfate, bulk, gram. .0650- .0875
1,2-Dihydroxy anthraquinone, dms., works lb. 2.75 - —
2,2-dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
tech., dms. lb. 1.09 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd lb. .18 - —
tanks, dlvd. lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E lb. .31½- —
dms., l.c.l., same basis lb. .32½- —
tanks same basis lb. .29 - —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd. E lb. .11½- —
tanks, dlvd. E lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .30½- —
dms., l.c.l., same basis lb. .31½- —
tanks, same basis lb. .28 - —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .62½- .63
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¼- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .48 - —
Dillseed, Indian, dewhiskered, bgs. lb. .12 - —
Dillseed oil, bots. lb. 2.80 - 5.00
Dillweed oil, dom., bots., dms lb. 3.10 - 4.10
Dimethyl anthranilate, cns. lb. 4.85 - 5.10
Dimethyl ethanolamines, anhyd., dms., c.l., dlvd lb. 1.225 - —
dms., l.c.l., dlvd. lb. 1.235 - —
tanks, dlvd. lb. 1.20 - —
70% dms. c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis lb. .69½- —
tanks, dlvd., 100% basis lb. .66 - —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works lb. 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, 55-gal. ret. dms., c.l., works lb. .15 - —
55-gal. ret. dms., l.c.l., works lb. .16 - —
10-gal. ret. dms., l.c.l., works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .16½- —
dms., l.c.l., works lb. .17 - —
tanks, works lb. .15 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald., 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38¼- —
tanks, frt. equald, 100% basis lb. .28 - —
Dimethylamine, 40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35¼- —
tanks, frt. equald, 100% basis. lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld. lb. .30 - —
dms., l.c.l., frt. alld. lb. .31 - —
tanks, frt. alld. lb. .28 - —
N,N-Dimethylformamide, dms., works. lb. .34 - .39
tanks, works lb. .32 - —
2,4-Dinitroaniline, dms., frt. alld. lb. .80 - —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies lb. 1.56 - —
Dinitroaniline orange toner prices 1c. higher W. of Rockies.
m-Dinitrobenzene, 85°C., dms. lb. .22 - —
89° C., dms. lb. .24 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .15¼- —
dms., l.c.l., frt. alld. E. lb. .15¾- —
tanks, frt. alld. E. lb. .15 - —
48°C., dms., c.l., frt. alld. E lb. .20¼- —
dms., l.c.l., frt. alld. E. lb. .20¾- —
tanks, frt. alld. E. lb. .20 - —
2,4-Dinitrophenol, bbls. lb. .37 - —
2,4-Dinitrotoluene, oily, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works. lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 - —
Dioctyl phthalate, dms., c.l., frt. alld. lb. .30½- —
dms., l.c.l., frt. alld. lb. .31½- —
tanks, frt. alld. lb. .28 - —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 - —
Dipentaerythritol, c.l., t.l., dlvd. E. lb. .38 - —
bgs., l.c.l., t.l., dlvd. E. lb. .39 - —
Dipentene, dest.-dist., dms., c.l., works gal. .59 - —
dms., l.c.l., works gal. .63 - —
dms., l.c.l., ex whse. gal. .79 - —
tankcars, works gal. .42 - —
Dipentene, steam dist., dms., c.l., works, South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South gal. .55 - —
Dip oil (see Tar acid oil)
Diphenyl, bgs., c.l., t.l., works lb. .17¼- —
bgs., l.c.l., works lb. .19 - —
tanks, works lb. .16 - —
Diphenyl oxide, perfume grade, cns. lb. .65 - .85
Diphenyl phthalate dms., c.l., works. lb. .51¾- —
dms., l.c.l. works lb. .53¾- —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .33 - —
bgs., l.c.l., same basis lb. .35 - —
Diphenylamine, refd., fused tanks, same basis lb. .30 - —
Refd., diphenylamine in dms. ½c. per lb. higher.
Diphenylguanidine bgs., dms., ton lots, frt. alld lb. .49 - —
bgs., smaller lots, frt. alld. lb. .50 - —
Diphenylhydantoin-sodium, USP, dms. lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17¾- —
dms., l.c.l., frt. alld. lb. .18¾- —
tanks, frt. alld. lb. .15¼- —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.45 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .69 - —
dms., smaller lots, frt. alld. lb. .70 - —
Divi-divi, 45% tannin, bgs., bis., c.l., US ports, ex dock ton. 76.00 Nom.
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis lb. 1.05 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt. equald lb. .14 - —
dms., l.c.l., same basis lb. .15 - —
tanks, same basis lb. .117 - —
Dodecylphenol, c.l., frt. alld. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .19½- —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd:

Blue, FD&C, No. 1	lb.	15.65	-17.60
No. 2	lb.	15.65	-17.60
Green, FD&C, No 1	lb.	15.65	-17.60
No. 2	lb.	19.60	-22.85
No. 3	lb.	31.30	-35.90
Red, FD&C, No. 1, cns.	lb.	5.90	- 7.85
No. 2	lb.	3.30	- 4.10
No. 3	lb.	19.60	-22.85
No. 4	lb.	5.55	- 7.50
Violet, FD&C, No. 1, cns.	lb.	15.65	-17.60
Yellow, FD&C, No. 1, cns.	lb.	9.15	-11.05
No. 5	lb.	3.30	- 4.10
No. 6	lb.	3.30	- 4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200 lb. and 1 lb. lots, dlvd:—

Black, D&C, No. 1	lb.	10.50	-10.95
Brown, D&C, No. 1	lb.	15.65	-16.10
Green, D&C, No. 5	lb.	15.65	-16.10
No. 6	lb.	15.65	-16.10
No. 7	lb.	14.35	-14.80
Orange, D&C, No. 3	lb.	10.50	-10.95
No. 4	lb.	19.60	-20.05
No. 5	lb.	3.80	- 4.25
Red, D&C, No. 17	lb.	10.50	-10.95
No. 18	lb.	23.60	-24.00
No. 19	lb.	15.00	-15.45
No. 21	lb.	3.90	- 4.35
No. 22	lb.	10.50	-10.95
No. 28	lb.	24.15	-24.65
No. 33	lb.	17.00	-17.45
Violet, D&C, No. 2	lb.	15.65	-16.10
Yellow, D&C, No. 7	lb.	10.50	-10.95
No. 8	lb.	10.50	-10.95
No. 10	lb.	13.05	-13.50
No. 11	lb.	13.05	-13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots dlvd:—

Blue, Ext., D&C, No. 1, cns.	lb.	15.65	-16.10
Green, Ext., D&C, No. 1, cns.	lb.	15.65	-16.10
Red, Ext., D&C, No. 1, cns.	lb.	13.05	-13.50
Yellow, Ext., D&C, No. 1, cns.	lb.	10.50	-10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale or prototype), contract, dlvd. No.

20	Chrysoldine Y dustless	lb.	.89	- —
27	Fast light, orange 3G	lb.	1.29	- —
31	Phloxine 2G	lb.	1.05	- —
36	Yellow 2G	lb.	1.18	- —
40	Orange R, extra, conc.	lb.	1.53	- —
57	Fuchsine 6B	lb.	1.55	- —
79	Scarlet 2R	lb.	1.16	- —
151	Orange AD	lb.	.79	- —
161	Orange	lb.	.94	- —
176	Fast Red A, conc.	lb.	1.53	- —
179	Rubine XX, conc.	lb.	1.47	- —
180	Blue F4B	lb.	1.31	- —
185	Brilliant scarlet 3RN, conc.	lb.	1.20	- —
203	Chrome blue black R, conc.	lb.	1.07	- —
203	Chrome black T	lb.	.92	- —
206	Fast blue 5R	lb.	1.30	- —
234	Brown Y	lb.	1.27	- —
246	Blue black, extra, conc.	lb.	1.37	- —
275	Milling red 3R, conc.	lb.	1.91	- —
288	Navy blue 3R, conc.	lb.	1.70	- —
299	Black F, conc.	lb.	2.19	- —
304	Neutral black 2B, conc.	lb.	2.61	- —
326	Fast scarlet 4BNC	lb.	3.12	- —
332	Brown, RX, conc.	lb.	1.35	- —
365	Brilliant yellow, conc.	lb.	3.11	- —
382	Scarlet B	lb.	3.60	- —
401	Diazo black BHD	lb.	.93	- —
406	Blue 2B, extra conc.	lb.	1.53	- —
419	Red FC	lb.	1.45	- —
420	Brown M	lb.	1.40	- —
448	Red 4BX, conc.	lb.	1.69	- —
518	Diamine sky blue FF, extra, conc.	lb.	1.95	- —
561	Brown B	lb.	2.59	- —
581	Black EB, 200%	lb.	1.33	- —

for exacting production schedules...

MATHIESON POLYETHYLENE GLYCOLS

(Poly-G's)

Poly-G 200, 300, 400 and 600 are clear, odorless, viscous liquids which are soluble in water, acetone, ethanol, ethyl acetate and toluene. Poly-G 1000, 1500 and B1530 are white waxy materials having slightly less water solubility than the lower members of the series. The Poly-G's are produced to meet the most exacting requirements ... delivered directly by our own fast-moving fleet of tank cars and tank trucks ... stocked locally, in resin-lined drums, by Mathieson distributors in key industrial areas.

Technical assistance is also available, to help with your specific problems. Contact your local representative for complete information or write today.

Ethylene Oxide
Ethylene Glycol
Ethylene Diamine
Diethylene Glycol
Triethylene Glycol
Polyethylene Glycols (Poly-G's)
Polyamines
Ethanolamines
Dichloroethylether
Ethylene Dichloride
Surfactants (Poly-Tergents)
Glycol Ether Solvents (Poly-Solv's)

Poly-G, Poly-Solv and Poly-Tergent are registered trademarks

ORGANIC CHEMICALS

OLIN MATHIESON CHEMICAL CORPORATION
745 FIFTH AVENUE, NEW YORK 22, NEW YORK

8633

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract dlvd. No.
593 Green BY, conc ..... lb. 1.02 - —
596 Yellow brown K, extra .... lb. 1.26 - —
620 Yellow 2G ..... lb. 1.31 - —
639 Fast Yellow GG ..... lb. 2.32 - —
640 Yellow XX ..... lb. 2.30 - —
655 Yellow OX ..... lb. 2.45 - —
657 Malachite green V, crystals. lb. 2.73 - —
662 Brilliant green G ..... lb. 3.62 - —
667 Milling green 6B, conc ... lb. 4.78 - —
671 Blue EG ..... lb. 1.85 - —
681 Crystal violet powder .... lb. 2.15 - —
698 Violet 6BN powder ..... lb. 2.25 - —
720 Brilliant blue BBG ..... lb. 2.44 - —
729 Blue B, extra conc ..... lb. 3.61 - —
749 Red BX ..... lb. 4.76 - —
800 Chinoline yellow ZSS ..... lb. 2.67 - —
814 Yellow NN, conc ..... lb. 3.67 - —
841 Safranine GF, extra, conc. lb. 4.11 - —
860 Induline base ZM ..... lb. 1.07 - —
865 Nigrosine J ..... lb. 4.76 - —
922 Blue GXX ..... lb. 2.22 - —
978 Black GXCF, conc ..... lb. .38 - —
1034 Alizarin red SC ..... lb. 3.31 - —
1078 Alizarin syanine green base Z lb. 6.13 - —
1085 Alizarin blue black B .... lb. 3.02 - —
1096 Golden orange GFD, single paste lb. 2.58 - —
1099 Dark blue BO, single paste lb. 2.28 - —
1101 Jade green N supra, double paste lb. 1.55 - —
1106 Blue RS double paste .. lb. 3.85 - —
1113 Blue BLFD double paste lb. 2.92 - —
1151 Brown R single paste .. lb. 2.29 - —
1171 Indigo synthetic 20% paste lb. .31 - —
1217 Orange RD double powder. lb. 4.60 - —
p-4 Brown PG ..... lb. 3.00 - —
p-24 Gray L ..... lb. 2.08 - —
p-80 Diazo brilliant scarlet ROAD lb. 3.62 - —
p-202 Diazo black VJ conc ..... lb. 2.48 - —
p-244 Brilliant scarlet BN ..... lb. 1.70 - —
p-313 Naphthol SWF ..... lb. 1.76 - —

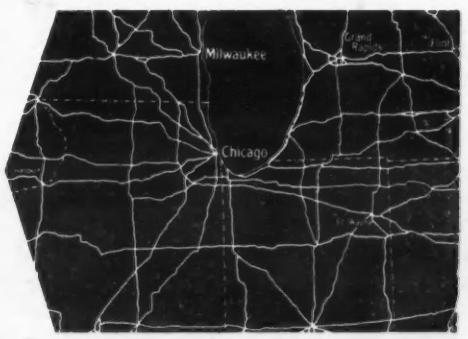
Dyes coaltar oil-soluble, 100-lb drums dlvd. No.
24 Oil orange Z-7078 ..... lb. 1.06 - —
73 Oil Scarlet BL ..... lb. 1.70 - —
1073 Oil violet ZIRS ..... lb. 6.81 - —
1078 Alizarin green CG ..... lb. 3.53 - —
1080 Oil violet special Z ..... lb. 6.81 - —
Oil black ZBC ..... lb. 4.46 - —
Oil black ZBD ..... lb. 3.03 - —
Oil black ZHH ..... lb. 4.61 - —
Oil black ZMM ..... lb. 6.52 - —
Oil blue ZN ..... lb. 8.02 - —
Oil blue ZV ..... lb. 4.95 - —
Oil orange ZMG ..... lb. 1.32 - —
Oil red N-1700 ..... lb. 1.76 - —
Oil yellow ZG conc ..... lb. 6.33 - —

Dyes, coaltar spirit soluble 100 lb. dms. dlvd. No.
p-517 Spirit yellow 2R conc .... lb. 4.62 - —
p-520 Spirit orange ZR conc .... lb. 5.87 - —
Spirit black RB ..... lb. 3.54 - —
Spirit brown ZG ..... lb. 5.30 - —
Spirit red B conc ..... lb. 6.41 - —

E

Echinacea root, bls ..... lb. 1.10 - —
Egg albumin (see Albumin).
Egg yolk, dried, dom., bbls. ..... lb. 1.20 - 1.22
tanners, bbls. ..... lb. .06 - .06½
Elm bark, grinding bls. ..... lb. .30 - .32
Powd., bbls., bxs. ..... lb. .45 - —
Select, bundles ..... lb. .75 - —
Emetine hydrochloride, USP, bots. oz. 42.00 -48.25
Endrin, tech., dms., t.l., dlvd ..... lb. 3.44 - —
Eosin red toner, bbls., works .... lb. 1.85 - —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots oz. .98 - 1.00
hydrous bots. 100-oz. lots oz. .92 - —
Ephedrine hydrochloride, NF, dms., oz. .60 - .65
Ephedrine sulfate, USP, cryst., dms., oz. .60 - .80
Powd., dms. ..... oz. .60 - .80
Epichlorohydrin, dms., c.l., dlvd. lb. .35½- —
dms., l.c.l., dlvd ..... lb. .36½- —
tanks, dlvd ..... lb. .33 - —
1-Epinephrine base syn. USP bots., 100 gram lots gram. .58 - —
Epsom salt (see Magnesium sulfate).
Erigeron oil, cns. ..... lb. 11.00 - —
Ergot, NF dms., tin-lined ..... lb. 1.60 - —
Eserine salicylate, bots ..... oz. 72.50 -84.00
Eserine sulfate, bots. ..... oz. 87.75 - —
1-Epinephrine base, syn., USP bots.,
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va. .... lb. .17 - —
Ester gum wood-rosin type, dms., c.l., same basis lb. .17 - —
Ether (see specific product).
Ethyl acetate, nat., ferment, 85-88% dms., c.l., frt. alld. lb. .15 - —
dms., l.c.l., dlvd. ..... lb. .16 - —
tanks, dlvd. ..... lb. .12½- —
95-98%, dms., c.l., dlvd. .. lb. .15¼- —
dms., l.c.l., dlvd. ..... lb. .16¼- —
tanks, dlvd. ..... lb. .12¾- —
99%, dms., c.l., dlvd. ..... lb. .15½- —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd. ..... lb. .13 - —
Syn., 85-88%, dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., dlvd. ..... lb. .16 - —
tanks, dlvd. ..... lb. .12½- —
95-98%, dms., c.l., dlvd. .. lb. .15¼- —
dms., l.c.l., dlvd. ..... lb. .16¼- —
tanks, dlvd. ..... lb. .12¾- —
99%, dms., c.l., dlvd. ..... lb. .15½- —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd. ..... lb. .13 - —
Ethyl acetoacetate, dms., c.l., dlvd. lb. .58½- —
dms., l.c.l., dlvd. ..... lb. .59½- —
tanks, dlvd. ..... lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 - —
dms., l.t.l., dlvd. ..... lb. .37 - —
tanks, dlvd. ..... lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms., c.l., dlvd. E. of Rockies .. gal. 20.63 - —
dms., l.c.l., same basis .. gal. 20.68 -20.74
tanks, same basis ..... gal. 20.47 - —
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies .. gal. .68 - —
dms., l.c.l., same basis .. gal. .73 - .79
tanks, same basis ..... gal. .52 - —
Ethyl alcohol, absolute, 200 pf. tax paid, dms., dlvd. E. of Rockies .. gal. 21.75 - —
dms., l.c.l., same basis .. gal. 21.80 -21.86
tanks, same basis ..... gal. 21.59 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., same basis ..... lb. .21 - —
tanks, same basis ..... lb. .17½- —
Ethyl benzoate, bots. ..... lb. .90 - —
Ethyl bromide tech., 98%, dms., c.l., frt. alld. E .. lb. .43 - —
dms., l.c.l., frt. alld. E ... lb. .45 - —
tanks, frt. alld. E. ..... lb. .41 - —
2-Ethyl butyl alcohol, dms., c.l., works .. lb. .30 - —
dms., l.c.l., works ..... lb. .30¾- —
tanks, works ..... lb. .28 - —
Ethyl butyl ketone, dms., c.l., t.l., works .. lb. .36 - —
dms., l.c.l., l.t.l., works ..... lb. .36¾- —
tanks, works ..... lb. .34 - —
Ethyl butyrate, works ..... lb. .90 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots, frt. alld. E. lb. .75 - —
Ethyl cellulose, vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E. lb. .68 - —
bgs., smaller lots, frt. alld. E. lb. .70 - —
Ethyl chloride, tech., cyls., works. lb. .20 - .22
dms., works ..... lb. .18 - .20
tanks, works ..... lb. .10 - —
Ethyl cinnamate, cns. ..... lb. 3.35 - 3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd. E lb. .43½- —
dms., l.c.l., dlvd. E ..... lb. .44½- —
tanks, dlvd. E. ..... lb. .41½- —
Ethyl ether, absolute, ACS dms lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns .. lb. 1.01 - —
½-lb. cns. ..... lb. 1.09 - —
¼-lb. cns. ..... lb. 1.21 - —
Ethyl ether, indust. dms., c.l., dlvd. lb. .13½- —
dms., l.c.l., dlvd. E. ..... lb. .14½- —
tanks, dlvd. E. ..... lb. .11 - —
2-Ethyl hexoic acid dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., l.t.l., dlvd. E. .... lb. .38 - —
tanks, dlvd. E ..... lb. 34½- —
(2-Ethyl hexoic acid, 1c. higher W. of Rockies).
2-Ethylyhexyl acrylate, c.l. or t.l., straight or mixed frt. alld. E lb. .47½- —
dms., l.t.l., same basis ..... lb. .48½- —
tanks, same basis ..... lb. .45 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol dms. c.l. dlvd. lb. .23¾- —
dms., l.c.l., dlvd. ..... lb. .24¾- —
tanks, dlvd. ..... lb. .21¼- —
Ethyl iodide, cbys., works .... lb. 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald lb. .52 - —
dms., l.t.l. frt. equald. ..... lb. .52½- —
tanks, frt. equald. ..... lb. .50 - —
Ethyl morphine hydrochloride, USP, bots oz. 11.83 - —
Ethyl nitrite (see Nitrous ether).
Ethyl oenanthate, dms. ..... lb. 1.20 - 1.50
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO, dms., c.l., dlvd lb. .44½- —
dms., l.c.l., dlvd. .... lb. .45½- —
tanks, dlvd. ..... lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works. lb. 1.02 - —
N-Ethyl-o-toluidide, bbls. ..... lb. .88 - —
Ethylamine (see Mono-, Di-, or Tri-).
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alld. ..... lb. .58 - —
tanks, frt. alld. ..... lb. .55 - —
Ethylbenzene, 99% dms. c.l. or t.l., frt. equald lb. .15 - —
dms., l.c.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works ..... lb. .30¾- —
Ethylene, contract, ref'y. gate .. lb. .0475- .0525
Ethylene dibromide dms. c.l., frt. equald lb. .30½- —
dms., l.c.l. frt. equald. ..... lb. .31½- —
tanks, frt. equald ..... lb. .28½- —
Ethylene dichloride, dms., c.l., dlvd. lb. .11½- —
dms., l.c.l., same basis ..... lb. .12½- —
tanks, same basis ..... lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .13½- —

ISOBUTYL ACETATE SAVED LACQUER MANUFACTURERS OVER $39,500 IN THIS AREA LAST YEAR



Are you taking advantage of this economical solvent?

If you are presently using n-butyl acetate you can, by switching to isobutyl acetate, save 14¢ a gallon, or more than $1,100 on every 8,000 gallon tank car. A medium-boiling lacquer solvent, isobutyl acetate can be used interchangeably with n-butyl acetate in most applications.

In nitrocellulose lacquers, its substitution produces no significant change in handling characteristics or in film properties.

By replacing methyl isobutyl ketone with isobutyl acetate, you save 5¢ a gallon or $400 on every 8,000 gallon tank car. What's more, use of isobutyl acetate helps you achieve improved blush resistance.

If you are using n-butyl acetate with sec-butyl acetate or n-propyl acetate, the average cost per gallon, using isobutyl acetate alone, will probably be less than any usable combination of these solvents. In addition, you free a storage tank for other purposes.

Ask your Eastman representative to show you how use of isobutyl acetate in your formulations can reduce solvent costs, or write to EASTMAN CHEMICAL PRODUCTS, INC., Chemicals Division, KINGSPORT, TENNESSEE.

Eastman
CHEMICAL PRODUCTS, INC.
KINGSPORT, TENNESSEE
subsidiary of EASTMAN KODAK COMPANY

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; New York City; Framingham, Massachusetts; Cincinnati; Cleveland; Chicago; St. Louis; Houston. **West Coast: Wilson Meyer Co.,** San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Ethylene Glycol Monobutyl Ether—1-Glutamine

Ethylene glycol monobutyl ether, dms., c.l., dlvd. E. lb. .22 - —
dms., l.c.l., dlvd. E. lb. .23 - —
tanks, dlvd E. lb. .19½- —
Ethylene glycol monoethyl ether, dms. c.l. dlvd. E lb .21 - —
dms. l.c.l., dlvd. E. lb. .22 - —
tanks, dlvd. E. lb. .18½- —
Ethylene glycol monoethyl ether, acetate dms. c.l. dlvd. E lb. .19½- —
dms., l.c.l., dlvd. E. lb. .20½- —
tanks, dlvd E. lb. .17 - —
Ethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E. lb. .22 - —
tanks, dlvd E. lb. .18½- —
Ethylene glycol monomethyl ether, acetate dms. c.l. dlvd. E lb. .29 - —
dms., l.c.l., dlvd. E. lb. .29¼- —
tanks, dlvd. E. lb. .27 - —
Ethylene glycol monostearate, triple pressed dms lb. .33 - .35
Ethylene oxide, dms. c.l., dlvd. E. lb. .21½- —
dms., l.c.l., dlvd. E. lb. .24½- —
tanks, dlvd. E. lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-98%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms. l.c.l. dlvd. E. 100% basis. lb. .43 - —
tanks, dlvd. E. 100% basis lb. .40 - —
Ethylvanillin, 100-lb. fib. dms., 500-lb. lots and over lb. 6.75 - —
Eucalyptol, USP, cns., dms. lb. 1.10 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .61 - 1.05
NF, rectified, 80-85%, dms. lb. .66 - 1.20
Eugenol, USP, dms lb. 1.60 - 2.25
Euphorbia herb, bls. lb. .15 - .17

F

F acid, crude, paste, bbls., works. lb. 2.10 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton.19.50 - —
Feldspar in bags $3 per ton. higher
Fennel oil, sweet USP, cns. lb. 2.75 - 2.95
Fennel seed, Argentine, bgs. lb. .14 - —
French, light, bgs. lb. .21 - —
Indian, light, bgs. lb. .25 - —
Rumanian, bgs. lb. .15 - —
Yugoslav, light, bgs. lb. .22½- —
Fenugreek seed, Moroccan, bgs lb. .07½- —
Ferric acetate, soln., USP IX, cbys. lb. .16 - —
USP IX, cbys. lb. .17 - —
Ferric chloride, anhyd., tech., dms., c.l., works .100 lbs. 7.50 - —
dms. l.c.l., works 100 lbs. 8.50 - —
Indust., cryst., bbls., c.l., works, 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
Ferric chloride, 42° Be. photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% basis .100 lbs. 4.00 - —
USP, cryst. dms., works lb. .07½- .09
Ferric citrate, gran., dms. lb. .88 - —
Ferric hypophosphite NF dms. lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld. lb. .28¼- —
Ferric oxalate, gran., dms. lb. .89 - .91
Ferric oxides (see iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs. lb. .64 - .67
Ferric pyrophosphate, NF, VII, soluble, gran., pearls, dms. lb. .79 - —
Ferric resinate 6¾% Fe., dms. ton. lots, frt. alld. lb. .36½- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld. lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l. works .ton.35.25 - —
bgs., l.c.l., works ton.36.25 -42.25
bulk, c.l., works ton.33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green, pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34½
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, dms. lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton 34.50 - —
bgs., l.c.l., dlvd. Metropolitan area, 100 lbs. 3.35 - 4.25
bbls., c.l., works ton.40.00 - —
bulk, c.l., works ton.27.00 - —
USP cryst., bbls., dms. lb. .09½- .10
Fir balsam, Canada, bbls. gal.32.00 -35.00
Oregon, bbls. gal. 3.75 - 4.00
Fir oil, Canada, cns. lb. 2.85 - 4.00
Fish oil, refd., alkali, dms. lb. .1350- .1400
Kettle-bodied, dms. lb. .1580- .1630
Light-pressed, dms. lb. .1200- .1250
tanks lb. .1050- —
Fishliver oil, high potency, 100,000 A units per gram, dms. 1,000,000 units. .16 - —
200,000 A units per gram., dms. 1,000,000 units. .17½- —
500,000 A units per gram., dms., 1,000,000 units. .18 - —
Fishmeal, dom., menhaden 60% protein grd., bgs., Chesapeake Bay area ton.145.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Chesapeake Bay area ton.141.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib., dms., kilo or more gram. .44 - —
10% feed grade, fib. dms., 3 kilos or more kilo.44.00 - —
Formaldehyde, 37%, (inhibited 7 to 8% methanol), USP, dms., c.l., dlvd. lb. .0645- —
tanks, dlvd. lb. .0380- —
Formaldehyde, 37%, (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0670- —
tanks, dlvd. lb. .0405- —
Methanol-free (uninhibited), tanks, dlvd. lb. .0350- —
Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1623- —
cbys., l.c.l., works lb. .1673- .1773
Fringetree bark, bls. lb. .60 - .61
Fuller's earth, bgs., c.l., Ill. mines, ton.19.00 - —
Calcined, bgs., c.l., same basis. ton.20.00 -21.75
Insecticide grade, dried, powd., bgs., c.l., Ga. or Fla. mines ton.17.50 - —
Oil-bleaching grade, 100-mesh, bgs., c.l., same basis ton.16.30 -17.00
200-mesh, bgs., c.l., same basis. ton.17.50 -18.00
Spent, bgs., c.l., ship't. point ton. 4.50 - 5.00
Fumaric acid, tech., bgs., dms., c.l., frt. alld. E. lb. .27¼- —
bgs., l.c.l., same basis lb. .28¼- —
Prices of fumaric acid 1½c. per lb. higher west of Denver.
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd. E. lb. .12 - —
tanks, dlvd. W. lb. .13 - —
dms., c.l., Memphis, Tenn. lb. .20 - —
Furfuryl alcohol, cns., works lb. .29 - —
dms., l.c.l., Memphis, Tenn. lb. .20 - —
Furfuryl alcohol, dms., c.l., Newark, N. J. lb. .21½- —
dms., l.c.l., Newark, N. J. lb. .22½- —
tanks, Memphis, Tenn. lb. .184 - —
Fusel oil, refd., dms., c.l., dlvd. lb. .18 - —
dms., l.c.l., dlvd. lb. .19 - —
tanks, dlvd. lb. .15½- —
Fustic extract cryst. No. 1, bbls., l.c.l. lb. .47½- —
No. 2, bbls., l.c.l. lb. .45½- —
No. 3, bbls., l.c.l. lb. .43½- —
Liq., No. 1, bbls., l.c.l. lb. .22½- —
No. 2, bbls., l.c.l. lb. .21½- —
No. 3, bbls., l.c.l. lb. .19 - —
Solid, No. 1, bxs., l.c.l. lb. .45 - —

G

G salt, bbls., frt. alld., 100% basis.lb. .73 - —
Gallic acid, NF VII, bbls., 1,000-lb. lots. lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Gallic acid, tech., bbls., 1,000-lb. lots. lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld. lb. 1.50 - —
Paste, bbls., frt. alld. lb. 1.45 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, pure pork skin), 75 AOAC test, bbls., c.l. lb. .55 - —
150 AOAC test, bbls., c.l. lb. .67 - —
200 AOAC test, bbls., c.l. lb. .74 - —
225 AOAC test, bbls., c.l. lb. .77 - —
275 AOAC test, bbls., c.l. lb. .84 - —
Gelsemium root, bls. lb. .26 - —
Gentian root, bls. lb. .23 - —
Grd., bbls., bxs. lb. .27 - —
Powd., bbls., bxs. lb. .28 - —
Geraniol, extra, cns., dms. lb. 2.20 - 3.00
Standard, cns., dms. lb. 2.05 - 3.40
soap grade, dms. lb. 1.10 - 1.75
Geranium oil, Algerian, cns. lb.16.50 -18.50
Bourbon, cns. lb.18.00 -22.75
Geranium oil, Turkish (see Palmarosa oil).
Geranyl acetate, cns. lb. 2.00 - 2.70
Ginger oil, dist., bots. lb.10.50 -16.00
Ginger oleoresin, NF, from African root, bots. lb. 5.00 - 5.60
NF, from Jamaican root, botts. lb. 8.75 -10.00
Ginger root, Cochin, bgs. lb. .14½- —
Jamaican, No. 3, bgs. lb. .34 - —
Nigerian, split, bgs. lb. .13 - —
Sierra Leone, bgs. lb. .15 - —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., frt. alld. lb. .18 - —
dms. l.c.l., frt. alld. lb. .20½- —
tanks, frt. alld. lb. .13½- —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs. c.l., dlvd. lb. .15 - —
131 jellygrams, bgs., c.l., same basis lb. .17 - —
164 jellygrams, bgs., c.l., same basis lb. .17½- —
191 jellygrams, bgs., c.l., same basis lb. .19 - —
222 jellygrams, bgs., c.l., same basis lb. .22 - —
Glue, bone, green, dry bone, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
65 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½- —
135 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —
Bone glue, l.c.l., prices 1c higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd. lb. .16 - —
95-121, bgs., c.l., dlvd lb. .17 - —
122-149, bgs., c.l., dlvd lb. .18½- —
150-177, bgs., c.l., dlvd lb. .21 - —
178-206, bgs., c.l., dlvd lb. .23½- —
207-236, bgs., c.l., dlvd lb. .26 - —
237-266, bgs., c.l., dlvd lb. .28 - —
267-298, bgs., c.l., dlvd lb. .30 - —
299-330, bgs., c.l., dlvd lb. .32 - —
331-362, bgs., c.l., dlvd lb. .34 - —
363-394, bgs., c.l., dlvd lb. .36 - —
395-427, bgs., c.l., dlvd lb. .38 - —
428-460, bgs., c.l., dlvd lb. .40 - —
461-494, bgs., c.l., dlvd lb. .42 - —
495-529, bgs., c.l., dlvd lb. .44 - —
Hide glue, l.c.l., prices 2c higher.
1-Glutamic acid, 99½%, fib. dms., 100-lb lots, frt. alld. lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb. 1.85 - —
1-Glutamine, bots., 100 gm. lots. gram. .45 - —

GLAD TO BE ABLE TO HELP...

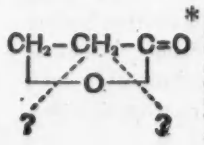
Celanese presents industry with BPL*—chemical with a wide-open future

Such is the versatility . . . and potential . . . of Celanese BPL (beta-Propiolactone) that the scope of its use must be broad indeed. BPL itself can be useful within a wide range of applications. In addition, its rapid reactivity with a large group of other chemicals makes it the starting point for synthesis of many new materials useful to science and industry.

BPL is now being evaluated for use in the textile and leather industries . . . as a component in the processing of plastics, paints, dyestuffs and synthetic fibers . . . in starches and adhesives . . . in medical and hospital applications . . . in agricultural and food technology . . . in nucleonics and astronautics.

Among the multitude of uses yet to be developed, tested, and produced, may be one in which you're interested. As always, we'll be more than happy to help you, if we can.

For further information on Celanese BPL, and/or evaluation samples, just write on your letterhead. Celanese® BPL™



* BPL's unique chemical structure gives it "difunctionality"—the ability to react with other chemicals, in two different directions, to produce various important derivatives.

Basic reasons.....

Acids	Functional Fluids	Polyols
Alcohols	Gasoline Additives	Plasticizers
Aldehydes	Glycols	Salts
Anhydrides	Ketones	Solvents
Esters	Oxides	Vinyl Monomers

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.....for improved products

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Aviation	Plastics
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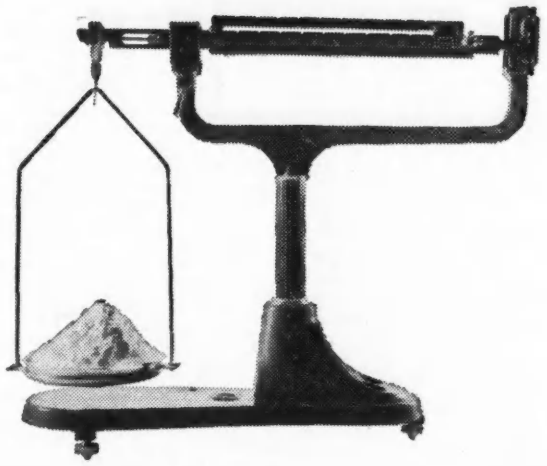
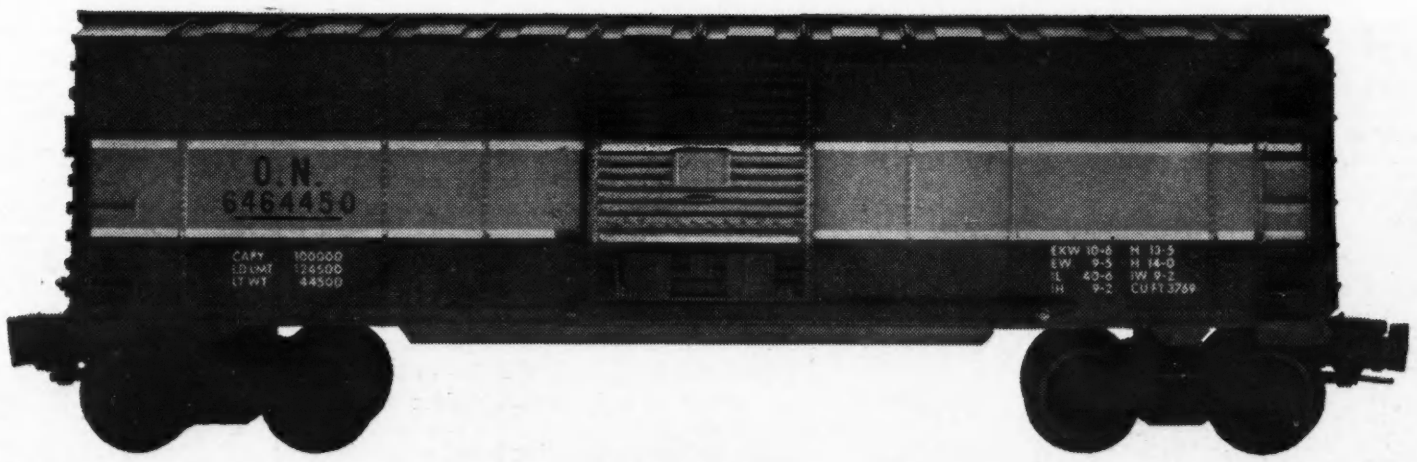
CELANESE CORPORATION OF AMERICA, CHEMICAL DIVISION, DEPT. 556-J, 180 MADISON AVE., NEW YORK 16

Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Ave., N. Y. 16. Canadian Affiliate: Canadian Chemical Company Limited, Montreal, Toronto, Vancouver





kilos or carloads

Upjohn FOLIC ACID U.S.P.

fine quality in bulk pharmaceuticals

FOR YOUR VITAMIN MANUFACTURING NEEDS, The Upjohn Company now offers folic acid in bulk—yet made in accordance with the same exacting standards of quality that have characterized Upjohn fine pharmaceuticals for almost seventy years. Upjohn Folic Acid is 99% pure by both chemical and microbiological assays. Its potency and purity are assured by several tests performed *in addition* to U.S.P. specifications.

INCLUSION OF FOLIC ACID IN STANDARD THERAPEUTIC VITAMIN CAPSULES for nutritionally depleted patients is recommended by the Committee on Therapeutic Nutrition. Folic acid, widely prescribed in certain types of macrocytic anemia, plays an important role in the formation of blood cells, protein metabolism, and the maintenance of tissue integrity.

UPJOHN FOLIC ACID is available in manufacturer's quantities as a powder . . . in standard particle size for tablets, capsules and powders . . . and in micronized particle size for oral suspensions and parenteral products.

UPJOHN BOOKLET ON "NEW DRUG APPLICATIONS" AVAILABLE ON REQUEST. THE UPJOHN COMPANY, CHEMICAL SALES DIVISION, KALAMAZOO, MICHIGAN

Glycerine—Hydroxyethyl Cellulose

Glycerine, dom., nat., crude, saponification, 88%, dlvd. E., tanks lb. .18½- —
nat., crude, soaplye, 80%, dlvd. E., tanks lb. .16½- .17
Imp., nat., crude, soaplye, 80%, c.i.f. lb. .17 - —
Glycerine, nat., refd., USP, CP, 98%, dms., c.l., dlvd lb. .29⅜- —
dms., l.c.l., dlvd lb. .29⅞- —
tanks, dlvd. lb. .27⅝- —
USP, 96%, dms., c.l., dlvd lb. .28½- —
dms., l.c.l., dlvd lb. .29 - —
tanks, dlvd. lb. .26¾- —
Glycerine, high gravity, dms., c.l., dlvd lb. .29¼- —
dms., l.c.l., dlvd. lb. .29¾- —
tanks, dlvd. lb. .27½- —
Glycerine, syn., dms., c.l., dlvd lb. .29½- —
dms., l.c.l., dlvd. lb. .30 - —
tanks, dlvd. lb. .27¾- —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glycolic acid (see Hydroxyacetic acid).
Glyoxal, 30%, dms., c.l., works lb. .20½- —
dms., l.c.l., works lb. .21¼- —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls lb. 4.10 - —
Grapefruit oil, dms. lb. 1.95 - 2.75
Graphite, amorp, powd., bgs., fib. dms., ex whse lb. .06 - .09½
Graphite, amorph., cryst., 88-90%, powd., bgs., fib. dms, ex whse lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24½
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Flake, No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd lb. .08¾- .09½
Yellow, tanks, dlvd lb. .07¼- —
Grease oil, No. 1, dms., c.l. lb. .15¾- —
dms., l.c.l. lb. .16¾- .18¾
extra winter, strained, dms., c.l. lb. .18¼- —
dms., l.c.l. lb. .19¼- .21¼
prime, burning, dms., c.l. lb. .19¾- —
dms., l.c.l. lb. .20¾- .22¾

Green Pigments

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls lb. .45 - —
Guaiacol, NF, cryst. dms., tins lb. 2.10 - 2.13
NF liq. cbys., dms. lb. 2.30 - 2.40
Guaiacol carbonate, NF, VII, dms. lb. 3.40 - 3.45
Guaiacwood oil, cns. lb. .85 - 1.50
Guar gum, food grade, bgs., c.l. lb. .38 - .44
bgs., 5,000 lbs. or more lb. .39 - .44
Tech. grade, bgs. lb. .30 - .33

Gums

Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

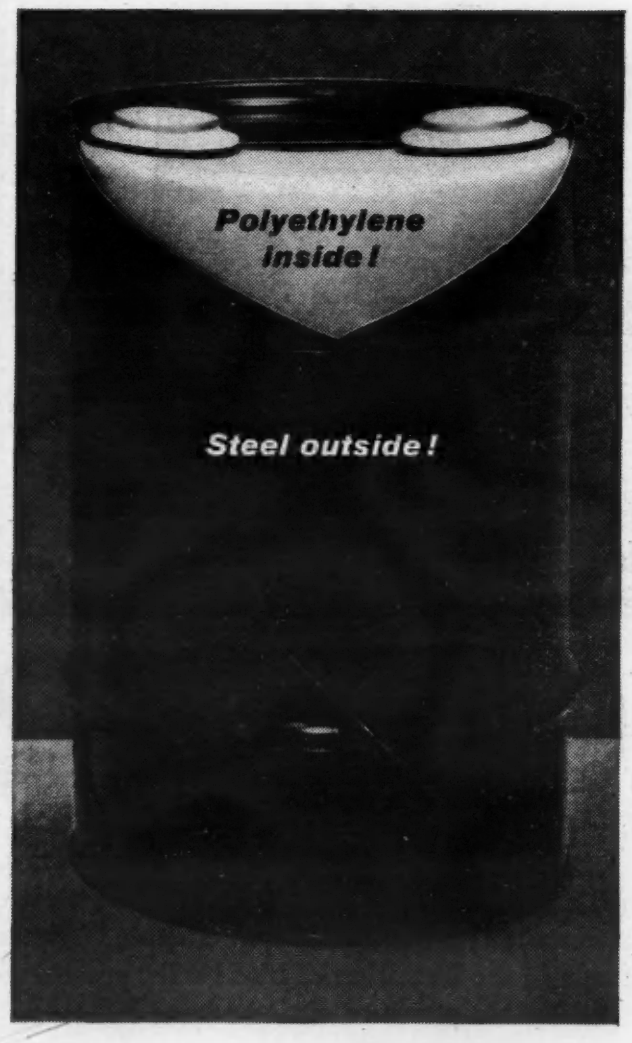
Gypsum, plaster of Paris, 100-lb. paper bgs., trucks, dlvd. New York ton.20.30 - —
Gypsum, terra alba, dom., 100-lb. paper bgs., trucks, same basis ton.20.00 - —
100-lb. paper bgs., trucks, works, New York ton.17 00 - —
Imp., English, 100-lb. paper bgs., ex dock, New York ton.55.00 - —
100-lb paper bgs., ex whse. ton.60.00 -62.00

H

H acid, dry, bbls., c.l., frt. alld., 100% basis lb. .90 - —
bbls., l.c.l., same basis lb. .95 - —
Hansa yellow, 10 G, bbls., dlvd. E. of Rockies lb. 3.45 - —
Hansa G yellow, pigment, bbls. lb. 3.20 - —
Hawthorn berries, bgs. lb. .21 - —
Heliotropin, 100-lb. lots, dms. lb. 2.50 - 3.00
Hellebore root, dom., green, bls lb. .70 - .75
Helonias root, bls. lb. 1.75 - 2.00
Hematine extract, cryst., No. 1, bbls., l.c.l. lb. .47 - —
No. 2, bbls., l.c.l. lb. .43 - —
No. 3, bbls., l.c.l. lb. .41 - —
No. 4, bbls., l.c.l. lb. .39 - —
No. 5, bbls., l.c.l. lb. .37 - —
Paste, No. 1, bbls., l.c.l. lb. .20½- —
Hemlock oil, cns. lb. 2.85 - 3.55
Henbane leaves, bls. lb. .35 - .40
Heptachlor, dms., c.l., t.l., 100% basis, frt. alld lb. .90 - —
Heptane, indust., tanks, Bayonne, N. J. gal. .20 - —
tanks, Baytown, Tex. gal. .16¼- —
tanks, Borger, Tex. gal. .16¼- —
tanks, Houston, Tex. gal. .16¼- —
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works lb. 8.95 - —
Hesperidin methylchalcone, bots., 50-lb. lots, works lb.22.50 - —
bots., 5-lb. lots, works lb.23.00 - —
bots., 1-lb. lots, works lb.23.50 - —
Hexachlorophene, dms. lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York lb. .233 - —
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis. lb. .243 - —
bgs., smaller lots, same basis lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib. dms., smaller lots, same basis lb. .253 - —
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .48½
Hexane, indust., tanks, Bayonne, N. J. gal. .20 - —
tanks, Borger, Tex., dlvd gal. .16 - —
tanks, Houston, Tex. gal. .16 - —
1-Hexanol, dms., c.l., works lb. .33 - —
dms., l.c.l., works lb. .35¾- —
tanks, works lb. .33 - —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms., l.c.l., works lb. .76 - —
Hexyl salicylate, dms. lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd lb.14.00 - —
dms., smaller lots, dlvd. lb.14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.00 - —
Homatropine methylbromide, USP, bots. oz. 3.90 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton. 6.25 - —
Horehound herb, bls. lb. .16 - .19
Hydrastis (see Goldenseal).
Hydrazine hydrate, 85% ret. dms., works lb. 1.35 - 1.55
100%, ret. dms., works lb. 1.60 - 1.90
Hydriodic acid, 1.50 s.g., cbys. lb. 2.92 - —
1.70 s.g. cbys. lb. 3.23 - —
Hydroabietyl alcohol tech., solid, dms., c.l., dlvd. zone 1 lb. .29¼- —
dms., l.c.l., dlvd. zone 1 lb. .29¾- .30¼
tanks, dlvd. zone 1 lb. .27¼- —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys., dlvd. E lb. .37 - .43
Hydrochloric acid, anhyd. (see Hydrogen chloride)
Hydrochloric acid 18° cbys., c.l., works 100 lbs. 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 2.90 - 3.05
tanks, works, frt. equald ton.28.00 - —
20°, cbys., c.l., works 100 lbs. 2.75 - —
cbys., l.c.l., dlvd. Metropolitan area 100-lbs. 3.15 - —
tanks, works frt. equald ton.30.00 - —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.65 - —
tanks, works frt. equald ton.35.00 - —
CP, USP, consumers cbys. extra c.l. works lb. .15¾- —
cbys., l.c.l., same basis lb. .17¼- .17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis lb. .20¾- —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. 2.25 - —
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 2.25 - —
Hydrocyanic acid, dilute, NF, 2%, 5-lb. bots lb. .40 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. dms., c.l., t.l., dlvd. 100 lbs.19.25 - —
55-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.20.75 - —
20-gal. dms., c.l., t.l., dlvd. 100 lbs.21.00 - —
20-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.22.50 - —
tanks, works frt. equald. 100 lbs.15.50 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.
Hydrofluosilicic acid, dms., works, 30% basis lb. .06 - —
Hydrofuramide dms., fib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide liq., 96% tanks, works lb. .16 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls. dlvd. W. lb. .39 - —
tanks, works lb. .21 - —
Hydrogen peroxide, USP, bbls. dlvd. lb. .03¾- .05
35%, dms., c.l., dlvd. lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800- —
Hydroquinone photo grade, dms lb. 1.03 - 1.06
Tech. dms., c.l., dlvd. lb. .82½- —
dms., l.c.l., dlvd. lb. .84½- —
Hydroxyacetic acid, tech., 70%, dms., Philadelphia and Chicago lb. .11 - —
tanks, Belle, W. Va. lb. .073 - —
Hydroxycitronellal, cns. lb. 4.50 - 5.30
Hydroxyethyl cellulose, low viscosity grades, 20,000-lb. lots or more, f.o.b. shipping point lb. 1.00 - —
2,000 to 19,999-lb. lots, same basis lb. 1.05 - —
150 to 1,999-lb. lots, same basis. lb. 1.07 - —
Less than 150-lb. lots, same basis lb. 1.17 - —

Now! From GENERAL CHEMICAL... *Leader in HF Production*

AQUEOUS HF IN NEW, SAFER "DRUM-WITHIN-A-DRUM"



Development of a safer container for Aqueous Hydrofluoric Acid (70% HF) has long been an important objective of chemical packaging specialists. Now General Chemical offers Aqueous HF in a new, safer "drum-within-a-drum" which combines the advantages of polyethylene and steel. Developed after more than two years of testing, this drum offers many important features:

Requires no venting! The new drum entirely eliminates venting, since there is no acid-to-steel contact. The all-steel drum presents possibility of danger from hydrogen pressure unless venting is done frequently and regularly.

No corrosion or leakage! One-piece polyethylene construction of inner drum cannot corrode or leak even during long periods of storage. The HF-resistant "poly" drum is fixed firmly inside its steel overpack.

Polyethylene closure seals tightly without "freezing"! Both bung opening and plug are acid-resistant polyethylene. The specially-constructed closure is exceptionally tight, yet simple to operate . . . eliminates "frozen" closures.

Lower tare weight! The new drum is much lighter than the all-steel container. The 30-gallon size, for example, carries 260 pounds of 70% HF with tare weight of only 40 pounds.

General Chemical is the nation's leading producer of hydrofluoric acid. Producing Works are located at Baton Rouge, La.; North Claymont, Del.; and Nitro, W. Va. Additional packaging locations at Buffalo, Chicago, Cleveland, Pittsburgh, and El Segundo (Calif.)

Telephone or write your nearest General Chemical office listed below for further information or service.

Basic Chemicals for American Industry

Allied Chemical

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40 Rector Street, New York 6, N. Y.

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Hydroxyethyl cellulose, high viscosity grades, 20,000-lb. lots or more, more, f.o.b. shipping point..lb. 1.10 - —
2,000 to 19,999-lb. lots, same basis..lb. 1.15 - —
Hydroxyethyl cellulose, 85 to 1,999-lb. lots, same basis..lb. 1.17 - —
Less than 85-lb. lots, same basis..lb. 1.27 - —
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots.oz. 6.00 - 7.00
Hyoscyamine sulfate, bots. ..... oz. 6.00 - 6.50
Hypernic extract, cryst. No. 1 bbls., l.c.l..lb. .52 - —
Liq. No. 1 bbls., l.c.l. .....lb. .35 - —
No. 2, bbls., l.c.l. .....lb. .27 - —
Hypophosphorous acid purif. 50% cbys., ton lots, f.o.b. works lb. .85 - —
NF, 30%, cbys., all quantities, same basis..lb. .75 - —

I

Ichthammol, NF, dms. .....lb. .75 - 1.05
Indigo (see Dyes coaltar, 1171 indigo, syn).
Indole, CP, bots .....lb. 15.75 -18.25
Inositol bots., dlvd. .....lb. 5.00 - —
dms., dlvd. .....lb. 4.50 - 4.75
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. .....lb. .93 - —
Resub., USP, dms .....lb. 2.00 - 2.02
Iodochlorohydroxyquinolin USP, dms..lb. 3.60 - —
Iodoform, NF, dms., kgs. .....lb. 4.90 - 5.00
a-Ionone, cns. .....lb. 3.80 - 4.15
b-Ionone, cns. .....lb. 4.20 - 4.90
Ipecac root, whole, bgs. .....lb. 8.75 - 9.25
Powd., bbls., bxs. .....lb. 9.50 -10.00
Irish moss, bleached, prime, bls lb. .28 - .34
Iron blue, reg., bbls., c.l., dlvd. E.lb. .52 - —
bbls., l.c.l., ton lots, same basis, lb. .53 - —
bbls., smaller lots, same basis, lb. .54 - —
Iron blue, imp., British, bbls., c.l., dlvd., E lb. .48 - —
bbls., l.c.l., ton lots, same basis, lb. .49 - —
bbls., smaller lots, same basis.lb. .50 - —
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .57 - —
bbls., l.c.l., ton lots, same basis, lb. .58 - —
bbls., smaller lots, same basis.lb. .59 - —
Iron blue dlvd. prices 1c. higher for Pacific Coast states:—Wash., Ore., Cal., N. M., Ariz., Mon., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous)
Iron oxide, black, pure, bgs., c.l., works..lb. .14¾- —
bgs., l.c.l., works.....lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works..lb. .14¼- —
bgs., l.c.l., works.....lb. .14½- —
Iron oxide, metallic, brown, bgs., works..lb. .05¼- —
Iron oxide, Persian Gulf, red, bgs., c.l., works..lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, Easton, E. St. Louis, N. Y..lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works..lb. .06¼- —
bgs., l.c.l., works .....lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock..lb. .05¾ Nom.
bbls., l.c.l., ex dock.....lb. .06 Nom.
bbls., l.c.l., ex whse. New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¼- —
Peruvian type, bgs., l.c.l lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
Other shades, same basis lb. .12 - —
Isoamyl alcohol, dms., c.l., works, frt. alld. E..lb. .27½- —
dms., l.c.l., same basis.....lb. .28½- —
tanks, same basis .....lb. .25 - —
Isoborneol, cns. .....lb. 1.44 - 1.80
Isobornyl acetate, cns. .....lb. .48 - .56
Isobornyl formate, dms. .....lb. 1.20 - —
Isobornyl proprionate, dms. .....lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns..lb. .75 - 1.00
Solvent grade, dms., c.l., dlvd. E. of Rockies..lb. .15¼- —
dms., l.c.l., same basis.....lb. .16¼- —
tanks, same basis.....lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd. lb. .16 - —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13¼- —
Isobutyraldehyde, CP, dms., c.l., dlvd..lb. .27½- —
dms., l.c.l., dlvd. .....lb. .28½- —
Isobutyraldehyde, tech., dms., c.l., dlvd..lb. .21½- —
dms., l.c.l., dlvd. .....lb. .22½- —
tanks, dlvd. .....lb. .19½- —
Isoeugenol, cns. .....lb. 3.55 - 3.75
Isoniazid, powd., bulk, 25-kilo lots or more..kilo. 23.00 -25.50
bulk, smaller lots. .....kilo. 24.00 -26.00
Isonicotinic acid, 100-lb. fib dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. .....lb. .24½- —
tanks, dlvd. E. .....lb. .21 - —
Isopentane, coml. grade, tanks, f.o.b. Tex. refy..gal. .15½- —
Isopropanol (see Isopropyl alcohol).
Isophorone, dms., c.l., works.....lb. .24½- —
dms., l.c.l., works.....lb. .25¼- —
tanks, works. .....lb. .22½- —
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis.....lb. .15 - —
tanks, same basis.....lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd..gal. .58 - —
dms., l.c.l., dlvd. .....gal. .65 - —
tanks, dlvd. .....gal. .42 - —
Refd., 95%, c.l., dms., dlvd..gal. .60 - —
dms., l.c.l., dlvd.....gal. .67 - —
tanks, dlvd. .....gal. .44 - —
Refd., 99%, dms., c.l., dlvd....gal. .62 - —
dms., l.c.l., dlvd.....gal. .69 - —
tanks, dlvd. .....gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd..lb. .09½- —
dms., l.c.l., dlvd. .....lb. .10½- —
tanks, dlvd. .....lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC), tech., dms., c.l., t.l., works..lb. 1.00 - —
dms., l.c.l., works.....lb. 1.05 - 1.25
tanks, works. .....lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works..lb. .75 - —
450-lb. fib. dms., l.c.l., works....lb. .80 - .90
Isoquinoline, dms., works.....lb. .65 - 1.25

Itaconic acid, purif. fib. dms., c.l. works..lb. .54 - —
fib. dms. l.c.l., works.....lb. .55 - —
Tech. fib, dms., c.l., works....lb. .39 - —
fib. dms., l.c.l., works.....lb. .40 - —

J

J acid, paste, bbls., works, 100% basis..lb. 2.45 - —
Powd. bbls., same basis.....lb. 2.50 - 2.85
Jalap root, NF, bls. .....lb. .85 - —
powd., bbls., bxs. .....lb. 1.00 - —
Japan wax, cs. .....lb. .30 - .31
Juniper berries, bgs. .....lb. .15 - —
Juniper berry oil, bots. .....lb. 2.90 - 3.75
Twice rectified bots. .....lb. 3.60 - 7.00
Juniper tar oil, NF, dms .....lb. .42 - .60
Juniper wood oil, tech. cns. .....lb. .33 - .55

K

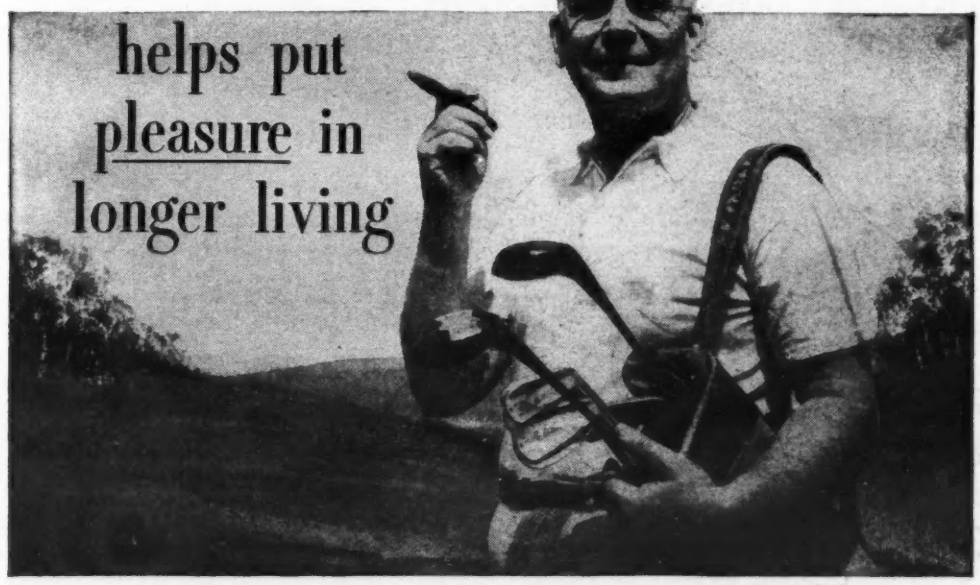
Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. .....lb. .10 - .12
colloidal, 50-lb. bgs. .....lb. .15½- .17½
Karaya gum No. 1, NF, powd. bbls..lb. .32 - .43
No. 2, powd., bbls. .....lb. .32 - .34
No. 3, powd., bbls. .....lb. .28 - .30
Koch acid, bbls., frt. alld., 100% basis..lb. 1.00 - —
Kola nuts, bgs. .....lb. .13 - —

L

L acid, bbls., works.....lb. 1.25 - —
Lacquer diluent, petroleum, 150°-240° F b.r., tanks, west coast, ex tax, Los Angeles gal. .174 - —
Lacquer diluent, petroleum, 150°-240° F. b.r., tanks, east coast, N. J., N. Y gal. .20 - —
Lacquer diluent, benzene type, tanks, group 3 gal. .1550- —
Toluene type, tanks, group 3 gal. .14375- —
tanks, Houston, Tex. ..... gal. .16 - —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1789- .2740
bbls., dms., 20 or more, frt. equald lb. .1839- .2790
bbls., dms., 5 to 19 frt. equald. lb. .1889- .2840
bbls., dms., 1 to 4, frt. equald. lb. .1938- .2890
80%, c.l., bbls., dms., frt. equald lb. .3039- .4625
bbls., dms., 20 or more, frt. equald lb. .3089- .4675
bbls. dms 5 to 19 frt. equald. lb. .3139- .4725
bbls. dms. 1 to 4 frt. equald. lb. .3189- .4775
Plastic grade, 50% c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls., 5 to 19, works .....lb. .2840- —
bbls., 1 to 4, works .....lb. .2890- —
80%, bbls., c.l., works .....lb. .4625- —
bbls., 5 to 19, works.....lb. .4725- —
bbls., 1 to 4, works .....lb. .4775- —
Tech., 22%, bbls., c.l., works, 100 lbs. 6.80 - —
bbls., l.c.l., works ....100 lbs. 7.20 - —

Lactic acid, tech., 44%, bbls., c.l., works..100 lbs. 11.45 -12.70
bbls., l.c.l., works .....100 lbs. 11.85 -13.10
USP, 85%, cbys. .....lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment. grade bgs., c.l., works lb. .03½- —
USP, fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
fib. dms., 200-1,800-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c. to 1c. lower.
Lactose, USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., l.t.l., frt. equald ... lb. .19 - .19¾
Lady's slipper root, bls. .....lb. 3.50 - 3.75
Lake C red toner, alizarine, bbls., works lb. 1.25 - —
Lamp black, bgs., c.l., works ....lb. .16 - .45
Lanolin, cosmetic, dms., works...lb. .27 - .29
USP, anhyd., dms., works....lb. .24 - .26
hydrous, dms., works .....lb. .23 - .25
Lard, cash, dms.....lb. .1325 Nom.
Lard oil (see Grease oil).
Larkspur seed, bgs. .....lb. .35 - —
Laurel leaf oil, dms., cns. .....lb. 9.75 -12.50
Laurent's acid, bbls. .....lb. .60 - —

ARGO® Inositol N.F.



SIGNIFICANT COMPONENT IN NEW GERIATRIC AND LIPOTROPIC FORMULATIONS

An important lipotropic agent, Inositol N.F. is helpful in regulating the metabolising of fat and cholesterol in the body. Far reaching studies of this natural-occurring Vitamin-B complex ingredient have revealed an important discovery – whether used alone or with certain vitamins, Inositol N.F. is synergistic with other lipotropic agents. Thus, it becomes a significant factor in many pharmaceutical preparations. It is also a constituent of an important class of phospholipids.

Your investigation of this prime ingredient for your therapeutic formulations is invited. Our technical staff will be happy to work with you on formula development.

"Fine Chemicals from Corn"

CORN PRODUCTS SALES COMPANY

17 BATTERY PLACE • NEW YORK 4, N.Y.

Lauric Acid—Magnesium Silicofluoride

Lauric acid, 60%, dms.	lb.	.31 - .33¼
tanks	lb.	.28½- —
Lauryl alcohol, bots.	lb.	2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l. works	lb.	.65½- —
dms., l.t.l., works	lb.	.66 - —
Lavandin oil, 22-24%, dms.	lb.	1.25 - 2.00
Abrial, dms.	lb.	.95 - 1.50
Lavender flowers, medium, bls	lb.	.75 - .80
Ord., bls.	lb.	.25 - .40
Select., bls.	lb.	1.10 - —
Lavender flower oil, USP, French, 35-37% ester, cns	lb.	3.50 - 9.50
38-42% ester, cns	lb.	5.00 -10.00
Spike, Spanish, cns.	lb.	2.20 - 2.85
Lead acetate, NF, cryst., gran., powd.	lb.	.34½- —
White, cryst., bbls.	lb.	.25½- —
gran., bbls.	lb.	.26½- —
powd., bbls.	lb.	.26½- —
Lead arsenate, acid powder, dealers, 5-lb. bgs. or larger, c.l., frt. alld. on 96 lbs. or more	lb.	.27½- —
3-lb. bgs. or larger, l.c.l., frt. alld	lb.	.28½- —
1-lb. bgs., c.l.	lb.	.41½- —
1-lb. bgs., l.c.l.	lb.	.42½- —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld	lb.	.17¼- —
bbls., l.c.l. same basis	lb.	.18¼- —
Lead carbonate (see Lead, white, basic carbonate).		
Lead chloride, dms.	lb.	.52 - —
Lead iodide NF V jars	lb.	3.83 - —
Lead linoleate fused 26% Pb. dms.	lb.	.38 - —
Lead metal, prime, pigs, New York.	lb.	.1250- —
St. Louis	lb.	.1230- —
Lead monosilicate, bgs., c.l., works, frt. equald	lb.	.143 - —
bgs., l.c.l., same basis	lb.	.153 - —
Lead naphthenate, liq., 16% Pb, dms., dlvd	lb.	.19½- —
24% Pb, dms., dlvd.	lb.	.24¼- —
Solid, 37% Pb, dms., dlvd.	lb.	.31¾- —
Lead nitrate, bbls.	lb.	.26¾- —
Lead orthosilicate-gel, 50-60% PbO, dms., works	lb.	.29¾- .34¼
Lead peroxide, tech. powd., bbls	lb.	.45 - .50
Lead phthalate dibasic dms., works.	lb.	.41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald	lb.	.14¾- —
bbls., l.c.l., same basis	lb.	.15¾- —
97% Pb_3O_4, bbls., c.l., same basis.	lb.	.1495- —
bbls., l.c.l., same basis	lb.	.1595- —
98% Pb_3O_4, bbls., c.l., same basis.	lb.	.1510- —
bbls., l.c.l., same basis	lb.	.1610- —
Lead resinate, precip. 23% Pb, dms., ton lots, dlvd	lb.	.40¼- —
Lead salicylate, normal, dms., works.	lb.	.46 - —
Lead silicate (see Lead white basic silicate).		
Lead silico-chromate, bgs., c.l.	lb.	.19 - —
bgs., l.c.l.	lb.	.20 - —
Lead sulfate (see Lead blue basic sulfate).		
Lead tallate, liq., 16% Pb, dms.	lb.	.15 - —
24% Pb, dms.	lb.	.18½- —
Solid, 30% Pb, dms.	lb.	.23¼- —
Lead, white, basic carbonate, bgs., c.l., shipt. pt., frt. alld.	lb.	.16½- —
bgs., l.c.l., same basis	lb.	.17½- —
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld	lb.	.15½- —
bgs., l.c.l., same basis	lb.	.16½- —
Lead, white, basic sulfate, bgs., c.l., shipt. pt., frt. alld.	lb.	.16¼- —
bgs., l.c.l., same basis	lb.	.17¼- —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works.	lb.	.14 - .15
non-ret. dms., l.c.l., same basis	lb.	.15 - .16
unbleached, non-ret. dms., c.l., same basis	lb.	.13 - .14
non-ret. dms., l.c.l., same basis	lb.	.14 - .15
Lemon bioflavonoid complex, fib. dms., 25-lb. lots, works	lb.	9.00 - —
Lemon oil, USP, Calif., cns., dms	lb.	3.15 - 4.00
Messina, cns.	lb.	4.50 - 9.50
Lemongrass oil, cns., dms.	lb.	.90 - 1.50
dl-Leucine, dms., works	lb.	12.25 -15.00
Licorice root, gran., bls.	lb.	.15 - .17
Powd., bls.	lb.	.12 - .15
Whole, bls.	lb.	.10 - .12
Lignaloe wood oil, Mexican, cns.	lb.	2.75 - 3.50
Lignosulfonate (see under ammonium or sodium lignin sulfonate).		
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E.	ton.	14.25 - —
Chemical, hydrated, bgs., c.l., same basis	ton.	17.25 - —
Chemical, spray, bgs., c.l., same basis	ton.	18.25 - —

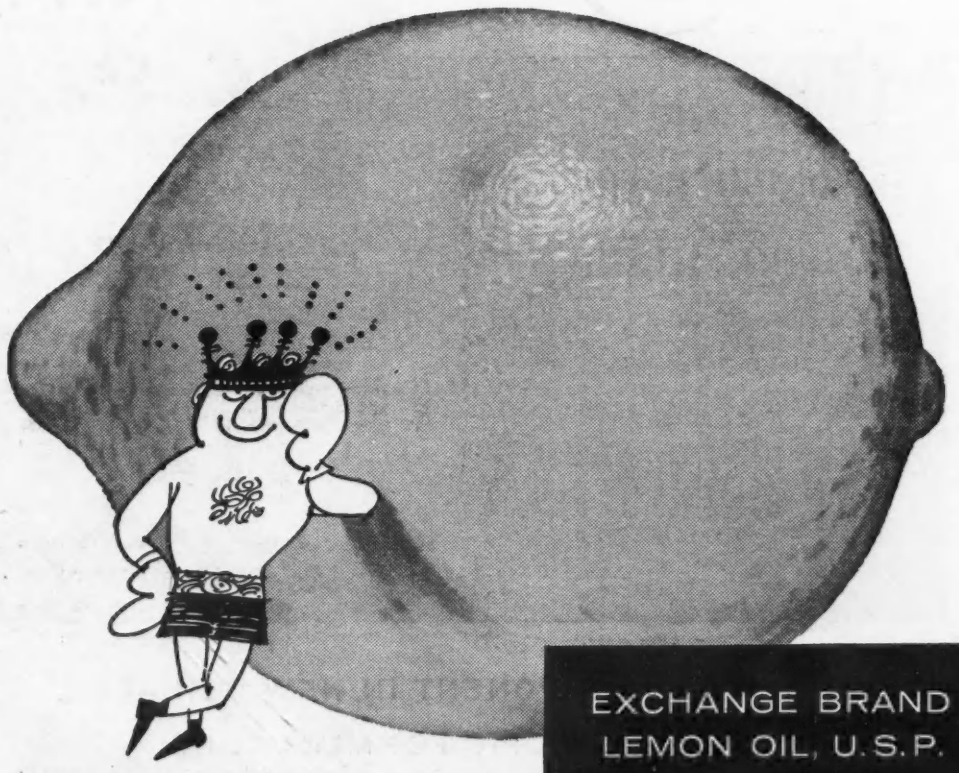
For New York delivery, add $6.29 freight charge.

Lime oil, dist., Mexican, cns.	lb.	6.50 - 6.80
West Indian, cns.	lb.	6.50 - 6.75
Expressed, West Indian, cns.	lb.	8.50 -13.70
Lime salts (see Calcium).		
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).		
Linalool, ex bois de rose oil, dms.	lb.	3.90 - 4.50
Syn., 98-100%, dms., works	lb.	4.40 - —
Linalyl acetate, ex bois de rose, 90-92%, dms.	lb.	4.30 - 5.35
96-98%, dms.	lb.	4.85 - 5.60
Ex petitgrain, bots.	lb.	4.80 - 5.90
Syn., 98-100%, dms., works	lb.	4.40 - —
Lindane, 25%, formulation dealers, dms., frt. alld	lb.	1.65 - 1.82
Lindane, 99%, t e c h. formulators, dms., frt. alld	lb.	2.65 - 3.25
Linden flowers, with leaves, bls	lb.	.25 - —
Without leaves, bls.	lb.	.30 - —
Linseed meal expeller, 32% bulk, Minneapolis, mills	ton.	57.00 - —
Extracted, 34% bulk, same basis.	ton.	50.00 - —
Linseed oil, raw, dms., c.l., New York	lb.	.1670- —
dms., l.c.l., New York	lb.	.1770- —
tanks, f.o.b. Minneapolis	lb.	.1320- —
tanks, New York	lb.	.1470- —
tankwagon, New York	lb.	.1510- .1530
Boiled linseed oil, .006c. per lb. higher.		
Linseed oil acids, dist., dms	lb.	.1970- —
Water-white, dms.	lb.	.2270- —
Linseed pitch, dms.	lb.	.06 - .06¾
Litharge, comml. powd., bbls., c.l., works, frt. equald	lb.	.14¼- —
bbls., l.c.l., same basis	lb.	.15¼- —
Lithium benzoate, dms.	lb.	1.65 - 1.67
Lithium bromide, NF, gran., works, frt. equald	lb.	2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd	lb.	1.29½- —
dms., ton lots to t.l., dlvd	lb.	1.30 - 1.30½
Tech., dms., c.l., t.l., frt. alld	lb.	.67 - —
dms., ton lots, same basis	lb.	.73 - —
Lithium carbonate, tech., dms., smaller lots, same basis.	lb.	.79 - —
Lithium chloride, CP, anhyd., dms., ton lots	lb.	1.23½- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld	lb.	.87 - —
dms., l.c.l., same basis	lb.	.88 - .92
Lithium citrate, NF, dms., ton lots.	lb.	1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd	lb.	2.15 - —
bbls., ton lots and more, dlvd.	lb.	2.18½- —
bbls., less ton lots, dlvd.	lb.	2.23½- —
Lithium hydride, powd., dms., 500-lb. lots or more, works	lb.	9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld	lb.	.72 - —
dms., l.c.l., frt. alld.	lb.	.73 - —
Lithium manganite, dms., works.	lb.	.95 - 1.05
Lithium nitrate, tech., dms., 100-lb. lots	lb.	1.15 - 1.25
Lithium salicylate, dms.	lb.	1.60 - 1.70
Lithium silicate, dms., works	lb.	1.10 - 1.20
Lithium stearate, dms., c.l., works.	lb.	.47½- —
dms., ton lots, works	lb.	.48½- —
dms., less-ton lots, works	lb.	.53½- —
Lithium sulfate, dms., 100-lb. lots.	lb.	1.15 - 1.25
Lithium titanate, dms., works	lb.	1.15 - 1.25
Lithol red toner, barium, bbls., works	lb.	.90 - —
Lithol-rubine red toner, pure bbls., works	lb.	1.50 - —
Resinated, bbls., works	lb.	1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E.	lb.	.08¾- —
bgs., l.c.l., dlvd. E.	lb.	.09¼- —
Lithopone, titanated (high-strength), bgs., c.l., dlvd	lb.	.11 - —
bgs., l.c.l., dlvd.	lb.	.12 - —
Lobelia herb, bls.	lb.	.45 - —
Lobeline sulfate, bots., works	oz.	37.50 -38.50
Locust bean gum, powd., bgs.	lb.	.38 - .39
Logwood extract, cryst., No. 1, bbls., l.c.l.	lb.	.41 - —
No. 2, bbls., l.c.l.	lb.	.39 - —
Liq. No. 1, bbls., l.c.l.	lb.	.20 - —
No. 2, bbls., l.c.l.	lb.	.19 - —
No. 3, bbls., l.c.l.	lb.	.18½- —
Solid, No. 1, boxes, c.l.	lb.	.35 - —
Lycopodium, cs.	lb.	9.00 - —
l-Lysine monohydrochloride, fib. dms., 25 lbs. or more	lb.	8.00 - —

M

Mace, Siauw, No. 1 bls.	lb.	2.45 - —
No. 2, whole, bls.	lb.	2.10 - —
siftings, bls.	lb.	2.00 - —
Mace oil, dist., cns., dms.	lb.	12.75 -15.75
Magnesia, calcined, tech., bgs., ctns., frt. equald	lb.	.25¾- .26¼
Tech., syn., rubber grade, light, bgs., c.l., frt. equald	lb.	.29¾- .30½
rubber grade, extra light, bgs., c.l., frt. equald	lb.	.29¾- —
bgs., l.c.l., frt. equald	lb.	.30½- —
USP, light bgs.	lb.	.36½- .37½
heavy, fib. dms	lb.	.45 - .52
Magnesite, chemical grade, calcined, powd. bgs., c.l., works, frt. equald	ton.	82.50 - —
Magnesite, chemical grade, dead-burnt, standard grain bulk c.l., Chawelah, Wash.	ton.	46.00 - —
Magnesium bromide, cs., jars	lb.	.95 - 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald	lb.	.10½- —
bgs., t.l., frt. equald	lb.	.11 - —
bgs., l.c.l., frt. equald	lb.	.12½- .13½
Magnesium carbonate, USP, bgs., c.l., frt. equald	lb.	.13 - —
bgs., t.l., frt. equald	lb.	.13½- —
bgs., l.c.l., frt. equald	lb.	.14½- .15½
Above prices are quoted f.o.b. works, freight equald, with Metropolitan New York and competitive producing points.		
Magnesium chloride, anhyd., 92% flake or pebble dms., c.l., works	lb.	.12¾- —
dms., l.c.l., works	lb.	.14 - .15
Magnesium chloride, hydrous, 99% flake, bgs., c.l., works.	ton.	55.00 - —
bgs., l.c.l., works	ton.	65.00 -80.00
Magnesium gluconate, dms.	lb.	1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b., works	lb.	.24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld.	lb.	.21 - —
dms., l.c.l., frt. alld.	lb.	.22 - —
tanks, frt. alld.	lb.	.20 - —
Magnesium metal, 99.8% ingots, 10,000-lb. lots or more, works	lb.	.36 - —
Pigs, 10,000-lb. lots or more, works	lb.	.35¼- —
Sticks, ea. works frt. alld. on carlots	lb.	.59 - —
Magnesium nitrate, cryst., dms., works	lb.	.20 - —
Magnesium oxide (see Magnesia, calcined).		
Magnesium peroxide, 15%, dms., works	lb.	1.00 - 1.05
Magnesium phosphate tribasic, NF, bbls.	lb.	.75 - —
Magnesium silicate (see Talc).		
Magnesium silicefluoride, dms., works	lb.	.10½- .12

How does one lemon oil become the unchallenged champion?



It must start with the correct varieties of lemon (California Lisbons, Eurekas and Villa Francos) for prized bouquet and character.

It must all be cold pressed from the peel to capture the superb true lemon flavor.

It must be bulk-blended from the correct proportions of oils from coastal and desert grown lemons.

It must be delivered unaltered to the buyer.

All of these things the Sunkist Growers do with the benefit of the greatest source of fruit, ultra-modern equipment and years of skill...to make Exchange Brand Lemon Oil the world's best.

Now you have the convenience of two types blended to specific needs. Both come to you in containers sealed with tamper-proof tabs stamped "Exchange."

Sunkist Growers PRODUCTS DEPARTMENT
ONTARIO, CALIFORNIA

EXCHANGE BRAND
LEMON OIL, U.S.P.
Exchange
CALIFORNIA COLD PRESSED

Distributed in the U.S. and Canada by

DODGE & OLCOTT, INC.
180 Varick St., New York 14, N.Y.

FRITZSCHE BROTHERS, INC.
76 Ninth Ave., New York 11, N.Y.

UNGERER & COMPANY, INC.
161 Avenue of the Americas, New York 13, N.Y.

Inquiries from countries other than the U.S. and Canada should be directed to the Sunkist Growers, Products Department.

Magnesium sulfate, tech., bgs., c.l., works..100 lbs. 2.15 - —
bgs., l.c.l., works.....100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs, l.c.l., 5,000 lbs., 1 withdrawal..100 lbs. 3.10 - —
bgs, smaller lots.....100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb. lots.....lb. .40 - —
fib. dms., 100-lb. lots.....lb. .45 - —
Bulky and super grades of magnesium trisilicate 7c. per. lb. higher.
Malachite green straight, PTMA, bbls, works lb. 5.30 - —
Malathion, dms., c.l., works.....lb. .89 - —
dms., l.c.l., works.....lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37½ - —
Maleic anhydride dms., c.l., dlvd. E. of Rockies lb. .28¾ - —
dms., l.c.l., dlvd. E. of Rockies lb. .29¾ - —
tanks, dlvd. E. of Rockies lb. .27¾ - —
Prices on maleic anhydride W. of Rockies, 1½c. per. lb. higher.
Malic acid, tech., dms.....lb. .50 - —
Mandelic acid NF dms., 1,000-lb. lots. lb. 2.35 - —
dms., smaller lots.....lb. 2.40 - 2.50
Mandrake root, bls.....lb. .48 - .50
Manganese acetate, dms., dlvd...lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½ - —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP anhyd., dms., 20,000-lb. lots, works lb. .21¾ - —
Smaller lots, works lb. .23½ - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton. 148.00 - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, paper bgs., same basis ton. 144.50 - —
40,000 to 99,999-lb. lots, dms, same basis ton. 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganous gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .35¾ - —
Solid, precip., 8.2% Mn, bbls..lb. .41¼ - —
Manganese metal, electrolytic, dms., c.l., dlvd. E.....lb. .34 - —
dms., ton lots, dlvd. E.....lb. .36 - —
dms., smaller lots, dlvd. E...lb. .38 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¼ - —
Manganese resinate, fused, 3½% Mn, dms..lb. .25¼ - —
Precip., 6½-7% Mn, dms.....lb. .33 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd. S. E...ton. 97.50 - —
bgs. l.c.l., dlvd. S. E.....ton. 104.50 - —
Manganese tallate, 6%, dms.....lb. .24 - —
Mangrove bark, E. African, 38% tannin, bgs., c.l., ex dock ton. 67.00 -68.00
Mangrove bark, South American, 30% tannin, bgs., c.l., ex dock..ton. 47.00 -50.00
Manila copal gum, C, bgs.....lb. .35 - .39
DBB, bgs.....lb. .25 - .28
DK, bgs.....lb. No stocks.
DK, dust bgs.....lb. .14 Nom.
MA, soft, bgs.....lb. .20 - .24
WS, bgs.....lb. No stocks.
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
fib. dms. to ton lots, works..lb. .62 - —
fib dms., single dm. works..lb. .65 - —
Marine pitch, dms.....lb. .04¼ - .05
MBT3 (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works.....lb. .30 - —
bgs., l.c.l., works.....lb. .31 - —
Menadione, USP, bots.....gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf..lb. .07½ - —
Menthol, nat., USP, Brazilian, cs. lb. 5.00 - 5.25
Japanese, cs.....lb. 7.00 - 7.18
Syn., USP, racemic, cns.....lb. 4.50 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld. lb. .44 - —
bgs., fib. dms. less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib. dms., less ton lots, same basis lb. .56 - —
Mercuric chloride NF, cryst., dms., 50-lb lots or more lb. 4.96 - —
gran. or powd., dms., 100-lb. lots or more..lb. 4.78 - —
Mercuric cyanide, NF, VIII, powd., fib. dms lb. 6.84 - —
Mercuric iodide red, NF, X, fib. dms., lb. 7.72 - —
Mercuric oxide, red, NF, X, powd., 50-lb. lots or more lb. 5.97 - —
Tech., 100-lb. lots or more, works lb. 5.77 - —
Mercuric oxide, yellow, NF, X, fib. dms lb. 6.14 - —
tech., bbls., 1,000-lb. lots..lb. 5.56 - —
bbls., smaller lots.....lb. 5.60 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF lb. 7.72 - —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask, net flask 235.00 -238.00
Mesityl oxide, dms., c.l., dlvd...lb. .15 - —
dms., l.c.l., dlvd.....lb. .16 - —
tanks, dlvd.....lb. .12½ - —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works.....lb. .57 - .73
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m- Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads, works lb. .47 - —
dms., smaller lots, works..lb. .47½ - .50
tanks, works.....lb. .45 - —
Methanol, nat., denaturing grade, tanks, frt. alld gal. .85 - —
Syn. zone 1, dms., c.l. or t.l. min., dlvd. gal. .47½ - —
dms., l.c.l., dlvd.....gal. .54½ - —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area..gal. .31 - —
tankwagon, 4,000 gal. min., dlvd gal. .26 - —
tankwagon, 4,000 gal. min., works..gal. .25 - —
Zone 2, dms., c.l., or t.l. min. frt. alld. or dlvd. gal. .51½ - —
dms., l.c.l., works.....gal. .56½ - —
tankwagon, 2,000-4,000 gal. lots, min., dlvd. Metropolitan area..gal. .35 - —
Methanol, syn., zone 2, tanks, 4,000 gal. min., dlvd..gal. .30 - —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah, Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methenamine (see Hexamethylenetetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld.....lb. 1.25 - —
dms., l.t.l., same basis.....lb. 1.29 - —
dl-Methionine, fib. dms., frt. alld., 50-lb. or more lb. 3.50 - —
Feed grade, 98%, fib. dms., same basis lb. 1.55 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs., frt. alld lb. .61 - .64
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 lb. .21½ - —
non-ret. dms., l.c.l., same basis.lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret, dms., c.l., dlvd. zone 1 lb. .23½ - —
non-ret. dms., l.c.l., same basis. lb. .24 - .24½

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio., Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.

Methyl acetone, nat., dms., l.c.l., E. of Miss., frt. alld gal. .62½ - —
Syn., dms., c.l., frt. alld. E...gal. .66 - —
dms., l.c.l., frt. alld. E.....gal. .72 - —
tanks, frt. alld. E.....gal. .51 - —

Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 - —
dms., l.t.l., dlvd.....lb. .40 - —
tanks, dlvd.....lb. .37 - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., dlvd, E.....lb. .18 - —
tanks, dlvd. E.....lb. .14½ - —
Methylamyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd.....lb. .18 - —
tanks, dlvd.....lb. .14½ - —
Methylamyl ketone, dms., works.lb. 1.05 - —
Methyl anthranilate, cns.....lb. 2.25 - 2.75
Methyl benzoate, cns., dms.....lb. .65 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .52 - .65
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Standard vis. (15,400 cps.), 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .76 - —
50-lb. bgs., smaller lots, frt. alld. on 100-lbs lb. .79 - .89
Methyl chloride, indust., cyls., frt. equald lb. .22½ - —
tanks, multi-unit, same basis. lb. .16¼ - —
Methyl chloride, indust., tanks, single unit, same basis lb. .12¾ - —
Refrigerator mfrs., cyls., dlvd lb. .48¾ - —
other consumers or service men, cyls., dlvd lb. .67¾ - —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns.....lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd.....lb. .16 - —
tanks, dlvd.....lb. .12½ - —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., l.c.l., works.....lb. .45¾ - —
tanks, works.....lb. .43 - —
Methyl formate, refd., dms. ....lb. .35 - .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works lb. .21½ - —
100-lb. multiwall paper bgs., l.t.l., works.....lb. .23 - —
Methyl heptin carbonate, bots lb. 28.00 -31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. lb. 3.85 - —
Methyl isobutyl carbinol (see Methyl - amyl alcohol).

ONE LABEL — *First Grade Only*

ONE PRICE — *That Saves You Money*

. . . and Perfect Performance for *Every* Purpose!

M. C. P.

Pure
Unadulterated
California

LEMON OIL

U. S. P.

An *Exclusively First Grade Lemon Oil* . . . Cold Pressed in California . . . and *Packed by the Producer* to Assure Highest Quality

For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M C.P LEMON OIL is being *prepared and packed* under the M.C.P. label. There is only *one* label and *one* quality — *the highest* — for M.C.P. LEMON OIL. Yet, M.C P. LEMON OIL costs you *less* . . . while providing a product that is unsurpassed for flavor, purity, and dependability . . . for *every* purpose.

Produced and Packed by

MUTUAL CITRUS PRODUCTS COMPANY

Since 1928 Growers and Processors of Citrus Products

Distributed by

MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anaheim, Calif.

R. D. WEBB & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

Methyl Isobutyl Ketone—Naphtha

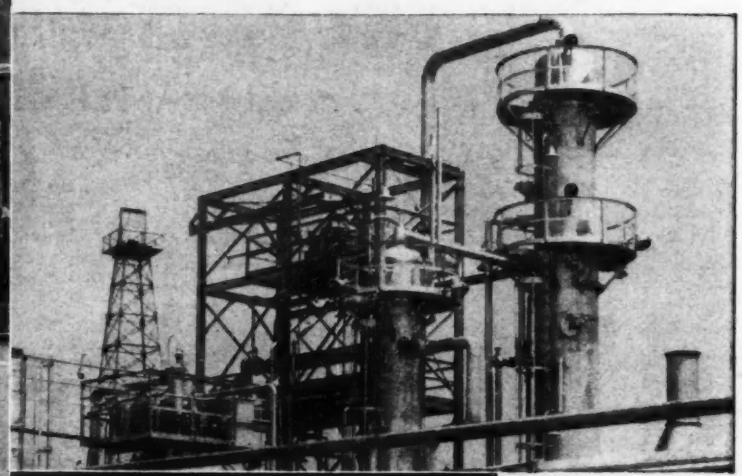
Methyl isobutyl ketone, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., dlvd. lb. .18 • —
tanks, dlvd. lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va. lb. .31 • —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 • —
Methyl naphthyl ketone, cryst., cns. lb. 3.00 - 4.30
Methyl parahydroxybenzoate (see Methyl p-Hydroxybenzoate).
Methyl parathion tech., 80%, dms., frt. alld. E lb. 1.12 • —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms. lb. 6.90 • —
Methyl salicate, USP, cns., 500-lb. lots lb. .62½- .67½
Methyl testosterone, USP, 100-gram bots. gram. No Prices.
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.80 • —
Methyl violet toner, tungstated, PTMA, bbls., same basis. lb. 4.35 • —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 3.25 • —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l. works lb. .14 • —
dms., l.c.l., l.t.l., works lb. .16¾- —
tanks, 4,000-gal. min., tank trucks, maximum load limit, works lb. .12½- —
tanktrucks, 1,000-gal. min., works lb. .13½- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb. .90 • —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methylpyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs. c.l., works lb. .04 • —
roofing, 20 to 80 mesh, works lb. .03 • —
Mica, wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½- —
bgs., l.c.l. ex-whse. lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .08¼- —
bgs., l.c.l., ex-whse, or freight alld. E lb. .09 • —
rubber, bgs., c.l., works, frt. alld. E lb. .08 • —
bgs., l.c.l., ex-whse. or frt. alld. E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾- —
bgs. ex-whse. or frt. alld. E. lb. .09 • —
Mica, wet-grd., wallpaper, white, 5-10 microns, bgs., c.l., white, 5-10 microns, bgs., c.l., works, frt. alld. E. lb. .08¼- —
l.c.l., ex-whse., or frt. alld. E. lb. .09 • —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 • .11
laminating grades, tankcars, works lb. .11 • .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy. gal. .62 • —
non-ret. dms., l.c.l., same basis gal. .67 • —
tankcars, refy. gal. .46 • —
65-75 vis., non-ret. dms., c.l., same basis gal. .62 • —
tankcars, refy. gal. .46 • —
80-90 vis., non-ret. dms., c.l., same basis gal. .63 • —
non-ret. dms., l.c.l., same basis gal. .68 • —
tankcars, refy. gal. .47 • —
135-138 vis., non-ret. dms., c.l., same basis gal. .69 • —
non-ret. dms., l.c.l., same basis gal. .74 • —
tankcars, refy. gal. .53 • —
145-155 vis., non-ret. dms., c.l., same basis gal. .75 • —
non-ret. dms., l.c.l., same basis gal. .80 • —
tankcars, refy. gal. .59 • —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .77 • —
non-ret. dms., l.c.l., same basis gal. .82 • —
tankcars, refy. gal. .61 • —
Mineral oil, white, USP, 200-210 vis., non-ret. dms., c.l., 200-210 vis., non-ret. dms., c.l., f.o.b., New York gal. .84 • —
non-ret. dms., l.c.l., same basis gal. .89 • —
tankcars, refy. gal. .63 • —
300-350 vis., non-ret. dms., c.l., f.o.b. New York gal. .84½- —
non-ret. dms., l.c.l., same basis gal. .89½- —
tankcars, refy. gal. .68½- —
Mineral orange, American, bbls., c.l., works lb. .1710- —
bbls., l.c.l., same basis lb. .1810- —
Mineral spirits, petroleum, odorless, tanks, refy. Watson, Calif. gal. .25 • —
tanks, Borger, Tex. gal. .25 • —
Houston, Tex. gal. .25 • —
Philadelphia gal. .32 • —
Newark gal. .29 • —
New York, dlvd. gal. .30½- —
Wood River, Ill. gal. .2725- —
tankwagon, New Jersey, dlvd. gal. .37½- —
tankwagon, New York, dlvd. gal. .38½- —
Mineral spirits, petroleum, regular, tanks, Calif., ex tax San Francisco gal. .169 - —
tanks, east coast, New Jersey, New York gal. .18 - —
tanks, group 3 gal. .12875- —
tanks, Houston, Tex. gal. .145 - —
tankwagon, Boston gal. .20 - —
Buffalo gal. .20½- —
Chicago gal. .289 - —
Cleveland gal. .23½- —
Newark gal. .19 - —
New York gal. .19 - —
Philadelphia gal. .19½- —
Pittsburgh gal. .19 - —
Providence gal. .20½- —
Mirbane oil (see Nitrobenzene)
MNPT maroon toner, kgs., c.l., works lb. 6.30 • —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .14 • .14½
tanks, New York gal. .16 • —
Molybdated orange, bbls. lb. .48 • —
Molybdenum metal, powd., 80 or 200 mesh, cns., works kilo. 7.84 • —
325 mesh, cns., works kilo. 9.13 • —
Molybdenum trioxide, pure, dms., works lb. 1.15 • —
Tech., dms., works, basis Mo. content lb. 1.39 • —
Molybdic acid, 85% dms., works. lb. 1.20 • —
Monoallylamine, dms., c.l., dlvd. lb. .965 • —
dms., c.l., dlvd. lb. .995 • —
tanks, dlvd. lb. .96 • —
Monabutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis lb. .58½- —
tanks, same basis lb. .55 • —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E. lb. .10½- —
dms., l.c.l., same basis lb. .11½- —
tanks, same basis lb. .08¾- —
Monoethanolamine, dms., c.l., dlvd. E. lb. .27½- —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .25 • —
Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous. solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
dms., l.c.l., dlvd. E., 100% basis. lb. .40 • —
tanks, dlvd. E., 100% basis lb. .35 • —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd E lb. .27½- —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .25 • —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½- —
dms., l.c.l., same basis lb. .34½- —
tanks, same basis lb. .31 • —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 • —
tanks, same basis lb. .26 • —
30-35% soln., dms., c.l., frt. equald., 100% basis lb. .36 • —
dms., l.c.l., frt. equald., 100% basis lb. .36½- —
tanks, frt. equald., 100% basis. lb. .26 • —
40% soln., dms., frt. equald., 100% basis lb. .33 • —
dms., l.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald., 100% basis. lb. .26 • —
Monopentaerythritol, tech., bgs., c.l., dlvd. E lb. .30 • —
bgs., l.c.l., dlvd. E. lb. .31 • —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld. lb. 3.05 • —
dms, 100-lb. lots, same basis lb. 3.25 • —
Monosodium glutamate, dms., any quantity, dlvd lb. 1.07 • —
Monosodium phosphate (see sodium phosphate, monobasic).
Mono-tertiary-butylmetacresol (see 6-tert-butyl-m-cresol).
Montan wax, dom., refd., bgs. lb. .29 • .30
Imp., crude, Bohemian, bgs. lb. .22 • .24
German, bgs. lb. .26 • .27
Morphine, cns. oz. 12.40 -12.60
Morphine acetate, anhyd., cns. oz. 9.95 -10.00
Morphine hydrobromide, cns. oz. 9.90 - 9.95
Morphine hydrochloride, NF, cns oz. 9.90 - 9.95
Morphine sulfate, USP, cns. oz. 9.90 -10.05
Morpholine, dms., c.l., dlvd. E. lb. .55¼- —
dms., l.c.l., dlvd. E. lb. .56¼- —
tanks, dlvd. E. lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb. 4.45 - 5.15
cns., 25-lb. lots lb. 5.05 - 5.65
Ketone, fib. dms., 100-lb. lots lb. 4.70 - 5.30
cns., 25-lb. lots lb. 5.35 • —
Xylol, fib. dms., 100-lb. lots lb. 1.40 • —
cns., 25-lb. lots lb. 1.45 • —
Mustard seed, Danish, yellow, bags. lb. .10¾- —
Montana, yellow, bgs. lb. .10½- —
Montana, No. 1, Oriental, bgs. lb. .08½- —
Mustard oil, syn. bots. lb. 1.60 - 1.85
Mustard seed oil, nat., dms. lb. 9.50 - 9.85
Myristic acid, dms. lb. .24 • .26¼
tanks lb. .23⅜- —
Myrobalans, Bombay ton. 44.00 -45.00
J-1, genuine, bgs., ex dock ton. 50.00 -51.00
J-1, crushed, bgs., ex dock ton. 65.00 -66.00
Myrobalans, extract, Indian, solid, 55% tannin, bgs., ex dock, plus duty lb. .10½- .10¾
Myrrh gum, cs. lb. .50 • .55

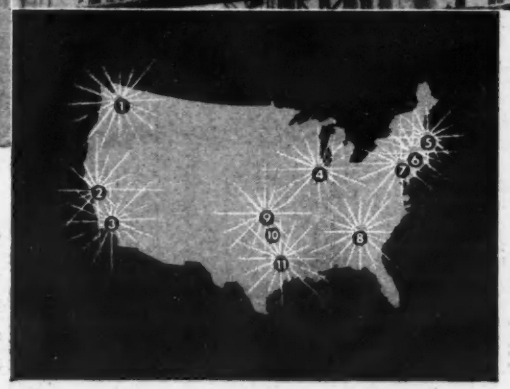
N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's, 140°F. flash, tanks, east coast, New Jersey and New York gal. .16 • —
tanks, group 3 gal. .15 • .15½
tanks, Houston, Tex. gal. .19 • —
tankwagon, Newark gal. .19 • —
New York gal. .19 • —
Philadelphia gal. .19½- —

RESEARCH
REFINING
WAREHOUSING
SALES OFFICES
AND AGENT STOCKS

THESE COMPLETE
BARECO WAX FACILITES





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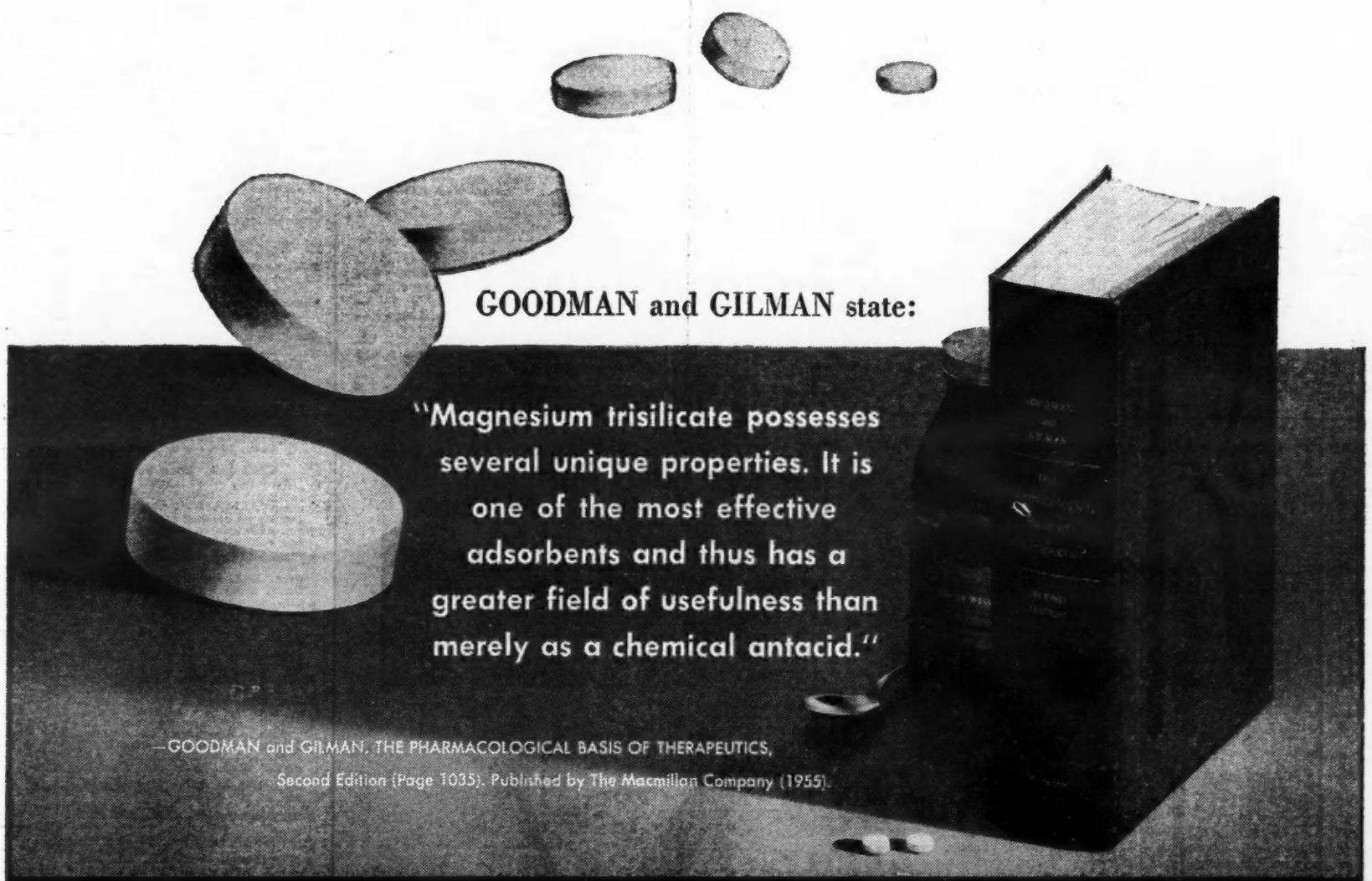
AP-58-4


GOODMAN and GILMAN state:
"Magnesium trisilicate possesses several unique properties. It is one of the most effective adsorbents and thus has a greater field of usefulness than merely as a chemical antacid."
—GOODMAN and GILMAN, THE PHARMACOLOGICAL BASIS OF THERAPEUTICS, Second Edition (Page 1035). Published by The Macmillan Company (1955).

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Through years of experience in manufacturing magnesium trisilicate, Mallinckrodt has learned to produce a superior product resulting in: (1) controlled bulk, (2) uniform white color, (3) uniform particle size and (4) consistent smoothness (freedom from grittiness).

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Naphtha—Olibanum Gum

Naphtha, VM&P, petroleum, 225°-300°F., b.r., tanks, west coast, Los Angeles ... gal. .174 - —
Portland, Ore. ... gal. .18 - —
San Francisco ... gal. .179 - —
Seattle, Wash. ... gal. .18 - —
east coast, New Jersey and New York gal. .19 - —
group 3 ... gal. .13875 —
Naphtha, VM&P, petroleum, tank-wagon, Boston gal. .21½- —
Chicago ... gal. .239 - —
Cleveland ... gal. .24½- —
Houston, Tex. ... gal. .15½- —
Newark ... gal. .20½- —
New York ... gal. .20½- —
Philadelphia ... gal. .21½- —
Pittsburgh ... gal. .20 - —
Naphthalene, crude, dom., 74°, tanks, frt. equald lb. .06¼- —
78°, bgs., c.l., same basis lb. .07½- .08
bgs., l.c.l., same basis ... lb. .07¾- .08¼
tanks, same basis ... lb. .07 - —
Imp., 78°, bgs., large lots ... lb. .04 - —
Refd., indust., chipped, crushed, bgs., frt. equald lb. .12½- —
tanks, same basis ... lb. .11¾- —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis lb. .15½- —
cs., 50 lbs., c.l., same basis. lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, bbls., frt. alld ... lb. 1.00 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .33 - —
bbls., l.c.l., works ... lb. .35 - —
Naphthol, ITR, red toner, bbls., works lb. 5.50 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Nevile and Winther's acid).
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, bbls., frt. alld lb. .50 - —
b-Naphthylamine, tech., flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib. dms ... lb. 8.50 - —
Neatsfoot oil, 15° cold test, dms lb. .30 - .33
20° cold test, dms ... lb. .29 - .32
30° cold test, dms ... lb. .28 - .31
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 - 8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity ... gram. .35 - —
fib. dms., 100-999-gram lots, basis activity ... gram. .40 - —
Neroli oil, NF, French, bots. ... lb. 550.00 -575.00
Tunisian, bots. ... lb. 400.00 - —
Nerolin, cns. ... lb. 2.55 - 2.85
Nevile and Winther's acid, dms., frt. alld ... lb. 1.30 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd ... lb. .68½- .75½
Nickel carbonate, bbls., dlvd ... lb. .78¼- .85¼
Nickel chloride, bbls., dlvd ... lb. .37 - .45
Nickel formate, bbls., ton lots, frt. alld lb. .72 - .73
Nickel metal electro cathodes, cs., works lb. .74 - —
Nickel nitrate, bbls., works ... lb. .32½- .33½
Nickel oxide, black, bbls ... lb. .85 - —
Green, bbls. ... lb. .84 - —
Nickel sulfate, bgs., c.l., dlvd ... lb. .28 - —
bgs., l.c.l., dlvd ... lb. .28½- .36
Nicotinamide, USP, dms., frt. adjusted kilo. 9.50 - 9.80
Nicotinamide hydrochloride, dms., frt. adjusted kilo. 9.50 - 9.80
Nicotine sulfate, 40%, dealers, 50-lb. dms., frt. alld lb. 1.20 - —
40%, manufacturers, 500-lb. dms., frt. alld lb. 1.05 - —
Nicotinic acid, USP, dms., dlvd kilo. 8.00 - 8.30
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs ... lb. .10¼- —
Nikethamide, cbys. ... lb. 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E. 100 lbs. 5.75 - —
cbys., l.c.l., works E ... 100 lbs. 6.05 - 6.85
38° Be., cbys., c.l., works, E. 100 lbs. 6.25 - —
cbys., l.c.l., works E ... 100 lbs. 6.55 - 7.35
Nitric acid, 40° Be., cbys., c.l., works, E. 100 lbs. 6.75 - —
cbys., l.c.l., works, E. ... 100 lbs. 7.05 - 7.85
42° Be., cbys., c.l., works, E. 100 lbs. 7.25 - —
cbys., l.c.l., works, E ... 100 lbs. 7.55 - 8.35
Nitric acid, 58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
CP, NF, consumer, cbys. extra, c.l., works lb. .18½- —
cbys. extra, l.c.l., works. lb. .20 - —
5-pint bots., extra, cs., c.l., same basis lb. .22½- —
5-pint bots., extra, cs., l.c.l., same basis lb. .24 - .25
m-Nitroaniline, cryst., dms., frt. alld lb. 1.15 - —
Paste, dms., frt. alld., 100% basis. lb. 1.10 - —
o-Nitroaniline, flaked, dms., t.l., frt. alld lb. .49 - —
dms., l.t.l., frt. alld ... lb. .51 - —
o-Nitroaniline orange toner, kegs, lb. 1.35 - —
p-Nitroaniline, dms. frt. alld ... lb. .445 - —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld lb. .13 - —
dms., l.c.l., frt. alld ... lb. .14 - —
tanks, frt. alld ... lb. .11 - —
p-Nitrobenzoic acid, dms., c.l., works lb. .66 - —
dms., l.c.l., works ... lb. .67 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .37½- —
bbls., l.c.l., same basis ... lb. .38½- .40½
Ester-soluble, 18-20 cps., bbls., c.l., same basis lb. .39½- —
bbls., l.c.l., same basis ... lb. .40½- .42½
Ester-soluble, 250-400, 600-1,000 seconds, bbls., l.c.l., same basis, lb. .43 - .46
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis. lb. .43 - —
bbls., l.c.l., same basis ... lb. .44 - .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. .42 - —
bbls., l.c.l., same basis ... lb. .43 - .45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.
o-Nitrochlorobenzene, dms., c.l., frt. alld ... lb. .15 - —
dms., l.c.l., same basis ... lb. .16 - —
tanks, same basis ... lb. .13 - —
p-Nitrochlorobenzene, dms. ... lb. .26 - .27
Nitroethane, dms., c.l., dlvd. E lb. .24 - —
dms., l.c.l., dlvd. E ... lb. .24¾- —
tanks, dlvd. E ... lb. .22½- —
Nitroethane prices West of Rockies are 1c. higher.
Nitrogen solutions, tanks, frt. equald unit. 1.14 - —
Nitrogenous process tankage, bulk, works unit-ton. 3.50 - 4.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works unit-ton. 3.10 - .50
Nitromethane, dms., c.l., dlvd E lb. .24 - —
dms., l.c.l., dlvd. E ... lb. .24¾- —
tanks, dlvd. E ... lb. .22½- —
Nitromethane prices West of Rockies are 1c. higher.
a-Nitronaphthalene, bbls., frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms., c.l., frt. alld. lb. .51 - —
dms., l.c.l., frt. alld ... lb. .53 - —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .22½- —
dms., l.c.l., same basis ... lb. .23¼- —
tanks, same basis ... lb. .21 - —
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .18½- —
dms., l.c.l., same basis ... lb. .19½- —
tanks, same basis ... lb. .16 - —
Nitropropane prices West of Rockies are 1c. per lb. higher.
o-Nitrotoluene, dms., c.l., frt. alld. lb. .13 - —
dms., l.c.l., frt. alld ... lb. .14 - —
tanks, frt. alld ... lb. .11 - —
p-Nitrotoluene, tech., flake or solid, dms., l.c.l., works lb. .30 - —
m-Nitro-p-toluidine, dms. ... lb. 1.43 - —
Nonylphenol, dms., c.l., frt. alld. lb. .22 - —
dms., l.c.l., frt. alld ... lb. .23 - —
tanks, frt. alld ... lb. .19½- —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutgalls, Aleppo, bgs. ... lb. .35 - .38
Chinese, bgs. ... lb. No prices.
Nutmegs, East Indian, bgs ... lb. 2.30 - —
West Indian, bgs ... lb. 1.95 - —
Nutmeg oil, USP, dist., East Indian, cns. lb. 11.65 -15.75
West Indian, cns. ... lb. 11.65 -15.75
Nux vomica, bls ... lb. .12 - —
Powd., bbls., bxs ... lb. .18 - —

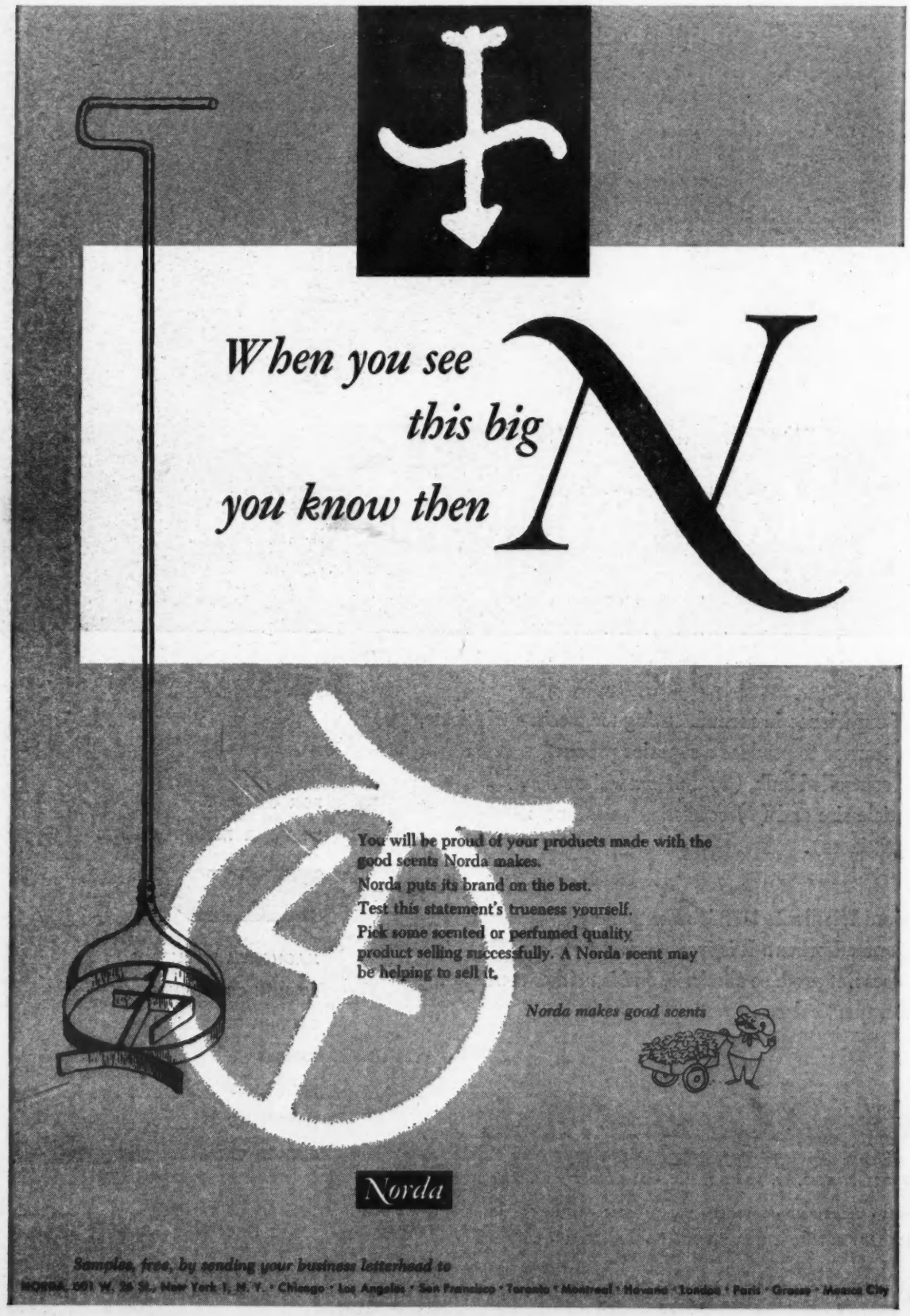
O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms ... lb. .45 - .95
Octane, indust., tanks, Bayonne, N.J. gal. .20 - —
Borger, Tex. ... gal. .15¾- —
1-Octanol, tech., dms., c.l., dlvd., Zone 1 lb. .37 - —
dms., l.c.l., dlvd, Zone 1 ... lb. .39 - —
tanks, dlvd., Zone 1 ... lb. .34½- —
Octyl alcohol, perfumers' grade, bots. lb. 1.60 - 3.25
Octyl alcohol, tech. (see 1-Octanol, tech).
Octyl phenol, bgs., c.l., works lb. .24 - —
bgs., l.c.l., works ... lb. .24½- —
tanks, works ... lb. .23 - —
Octyl phenol in dms., 11c. higher.

Oils

Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms ... lb. .18 - .18¼
tanks ... lb. .16½- —
Oleic acid, dbl.-dist. (white), dms. lb. .18¼- .20¼
tanks ... lb. .15½- —
Single-dist., dms. ... lb. .17 - .19½
tanks ... lb. .15¾- —
Oleo oil, extra, dms. ... lb. .17¾- .18
Oleostearine, dms. ... lb. .13½- .14
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs. ... lb. .20 Nom.
Tears, cs. ... lb. .22 - .30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You will be proud of your products made with the good scents Norda makes.
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Olibanum oil, bots. ..... lb. 5.00 - 7.65
Extra fine, bots ..... lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid .. gal. 2.50 - 2.60
Olivine, crude, works ..... ton. 12.00 - —
20 mesh, works ..... ton. 15.00 - —
100 mesh, works ..... ton. 20.00 - —
Opium, USP, cns ..... oz. 19.20 -19.45
gran., cns. ..... oz. 21.65 -21.90
powd., cns. ..... oz. 21.65 -21.90
Orange oil, expressed, USP, Brazilian, cns., dms lb. No stocks.
California, cns., dms .... lb. 2.25 - 2.35
Florida, cns., dms ..... lb. 1.70 - 2.30
Messina, cns. ..... lb. 3.85 - 5.85
West Indian, cns., dms .. lb. 2.50 - 3.85
Sweet, dist., cns., dms ..... lb. .90 - —
Orange peel, bitter, Haitian, bls lb. .14 - .16
Sweet ..... lb. .30 - .35

Orange Pigments

Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns ..... lb. 1.80 - 2.30
Orris root, Florentine, bls. ..... lb. .55 - —
powd., bbls., bxs. ..... lb. .68 - —
Verona, bls. ..... lb. .35 - .40
powd., bbls., bxs. ..... lb. .44 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzalde(hyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid, (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Osage orange, cryst., No. 1, bbls., l.c.l. lb. .40 - —
Extract, liq., No. 1, bbls., l.c.l., lb. .19 - —
Ouabain, USP, bots. ..... gram 3.00 - 4.00
Ouricury wax, crude, bgs ..... lb. .79 Nom.
Refd., pure, bgs ..... lb. .90 Nom.
Oxalic acid, bbls., c.l., works .. lb. .18½- —
bbls., 10,000-lb. lots, works .. lb. .18¾- —
bbls., smaller lots, works .. lb. .19¾- —
b-Oxynaphthoic acid, fib dms., 250 lbs. or more, frt. alld., lb. 1.14 - 1.17
Oxyquinolin sulfate, cns., 100-lb. lots, works, lb. 4.75 - 5.00
cns., smaller lots, works ..... lb. 4.92 - 5.17

P

Palm oil, clarif., dms ..... lb. .14 - .15
tanks ..... lb. .11½- —
Palm oil acid, dist., dms ..... lb. .15¾- .19¼
tanks ..... lb. .13¾- .14¼
Palmarosa oil, cns ..... lb. 3.50 - 6.00
Papain, purified ..... lb. 8.50 -12.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
cns., smaller lots ..... oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns., .. oz. 7.10 - 7.35
Paprika, Bulgarian, bgs. ..... lb. .28 - —
Hungarian, bgs. ..... lb. .33 - —
Spanish, bgs. ..... lb. .37 - .47
Yugoslavian, bgs. ..... lb. .36½- —
Para-aminobenzoic acid (see p-Aminobenzoic acid)
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. ..... lb. 1.21 - —
Chlorinated, kgs. ..... lb. 1.35 - —
Paraffin, crude, scale, white, 123°-127°F, ASTM, tanks, refy. lb. .0710- —
Paraffin, fully refd., 122°-124°F, ASTM, tanks, refy .. lb. .0815- —
125°-127°F, ASTM, tanks, refy. lb. .0815- —
130°-132°F., ASTM, tanks, refy. lb. .0815- —
132°-134° F., ASTM, tanks, refy. lb. .0815- —
135°-137°F., ASTM, tanks, refy. lb. .0815- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Parafin oil, pale, 100-110 vis. at 100°F., tanks, east coast refy. gal. .14 - —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld .. lb. .0955- —
bgs., l.c.l., frt. alld ..... lb. .1155- .1255
91%, powd., bgs. c.l., ex whse .. lb. .167 - —
bgs., l.c.l., ex whse ..... lb. .182 - —
USP-X, fib. dms., c.l. ..... lb. .19 - —
fib. dms., 1,000-lb. lots ..... lb. .20 - —
fib. dms., smaller lots ..... lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd .. lb. .14 - —
55-gal. dms., l.c.l., dlvd .. lb. .15 - —
tanks, dlvd ..... lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene.
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, ethyl, dms., c.l. frt. alld. lb. 1.36 - —
dms., l.c.l., frt. alld. ..... lb. 1.41 - —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).

Paris green, dealers, 100 lb. dms., frt. alld .. lb. .45 - —
Passion flower herb, bls. ..... lb. No stocks.
Patchouli oil, dms. ..... lb. 4.25 - 5.75
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb., bbls., dlvd. E. of Rockies .. lb. 1.00 - —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, 45%, old process, bgs., mills .. ton. 62.00 -64.00
Peanut oil, crude, tanks, f.o.b. mills. lb. .15¾- .16
Refd., dms. ..... lb. .21¼- .21½
tanks ..... lb. .19¼- —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
tech., powd., 150 jelly grade. lb. 1.28 - —
Imp., Danish, ex whse ..... lb. 1.28 - —
Penicillin potassium, cryst., bulk. 1,000,000 units. .0673- .0700
Penicillin, procaine, bulk ..... 1,000,000 units. .0673- .0700
Penicillin, sodium, bulk ..... 1,000,000 units. .0775- .0800
Pennyroyal oil, USP, imported, cns. lb. 2.30 - 3.10
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald .. lb. .22 - —
bgs., l.c.l., same basis ..... lb. .23½- .30
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd .. lb. .29½- —
bgs., l.c.l., dlvd ..... lb. .30½- —
Pentaerythritol, di- and tri- isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —

Pentobarbital, dms., 100 lbs. or more .. lb. 6.00 - —
Pepper, Malabar black, bgs ..... lb. .25 - —
Lampong, black, bgs ..... lb. .25 - —
Sarawak, black, bgs ..... lb. .25 - —
Red, Funtuas, bgs. ..... lb. .33 - —
Gondars, bgs. ..... lb. .30 - —
Japanese, Hontaka, bgs ..... lb. .27 - —
Santaka, bgs. ..... lb. .25 - —
Sudanese, bgs. ..... lb. .34 - —
Zanzibar, bgs. ..... lb. .43 - —
White, Muntok, bgs ..... lb. .37½- —
Peppermint leaves, dom., USP, bls., dms .. lb. .70 - .73
Imp., USP., bls ..... lb. .83 - —
Peppermint oil, nat., dms ..... lb. 4.25 - 6.25
Redist., USP, dms ..... lb. 4.60 - 5.95
Perchloroethylene, dms., c.l. or t.l., dlvd .. lb. .13½- —
dms., l.c.l., dlvd ..... lb. .15¼- —
tanks, dlvd ..... lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd. lb. .12¼- —
Peri acid, dry bbls. frt. alld. .... lb. 1.35 - —
Paste, bbls., frt. alld ..... lb. 1.30 - —
Peru balsam, dms ..... lb. 1.30 - 1.95
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms .. lb. 2.35 - 2.95
Petrolatum, cream, dms., c.l., refy. lb. .07¾- —
dms., l.c.l., dlvd ..... lb. .10¼- —
tanks, refy. ..... lb. .05½- —
Extra amber, dms., c.l., refy .. lb. .06¾- —
dms., l.c.l. dlvd ..... lb. .09½- —
tanks, refy. ..... lb. .04½- —

Petrolatum, lily white, dms., c.l., refy .. lb. .08½- —
dms., l.c.l., dlvd ..... lb. .10½- —
tanks, refy. ..... lb. .05⅞- —
USP, snow white, dms., c.l., refy. lb. .08⅝- —
dms., l.c.l., dlvd ..... lb. .11 - —
tanks, refy. ..... lb. .06⅜- —
USP, soft yellow, dms., c.l., refy. lb. .06¾- —
dms., l.c.l., dlvd ..... lb. .09⅛- —
tanks, refy. ..... lb. .04½- —
Petroleum pitch (see Asphalt, petroleum).

Petroleum Products

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, nonret. dms., c.l., works .. lb. .16½- .18¾
non-ret. dms., l.c.l., works .. lb. .17½- .19
tanks, works ..... lb. .14½- .17

Solvesso 150 has long been a standard solvent in baking-alkyd surface coatings used in the automotive industry. Unsurpassed in uniformity and purity, it is an outstanding member of the high-quality Esso family of aromatic solvents, the solvents that set performance standards *throughout* the paint and surface coatings industry. Esso's excellent customer service combines with the most modern handling methods and key distribution centers to assure you of a constant supply and *immediate* delivery. For a head start to the best finish, always specify Esso Petroleum Solvents. Write, wire or phone today! Esso Standard Oil Company, 15 West 51st St., N. Y. 19, N. Y.

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SOLVESSO TOLUOL • SOLVESSO XYLOL • SOLVESSO 100 • SOLVESSO 150

High-Quality Aromatic Solvents covering the full range of industrial needs

Esso

PETROLEUM SOLVENTS

Petroleum sulfonate, oil soluble, 50-55%, sulfonic content, non-ret. dms., c.l., works. lb. .16 - —
non-ret. dms., l.c.l. works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms. c.l., frt. alld. E lb. .91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms., same basis lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lb. lots lb. 3.25 - —
Phenobarbital-Sodium (See sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E of Rockies lb. .18 - —
non-ret. dms., l.c.l., same basis. lb. .19 - —
tanks, same basis lb. .16 - —
82-84% (cresol 16-18%), non-ret, dms., c.l., same basis lb. .17½- —
non-ret. dms., l.c.l., same basis. lb. .18½- —
tanks, same basis lb. .15½- —
39°C. or above, tar distilled non-ret. dms., c.l., same basis lb. .19½- —
non-ret. dms., l.c.l., same basis. lb. .20½- —
tanks, same basis lb. .17½- —
Phenol, USP, syn., dms., c.l., t.l., frt. alld lb. .20½- —
dms., same basis lb. .21¼- —
tanks, same basis lb. .18¼- —
Phenolphthalein, USP or yellow, fib. dms., 2,000-lb., lots. lb. 1.30 - 1.32
fib. dms., smaller lots lb. 1.32 - 1.37
Phenothiazine drench, fib. dms., t.l., dlvd. lb. .44 - —
fib. dms., l.t.l., same basis lb. .47 - —
NF, fib. dms., t.l., same basis lb. .43 - —
fib. dms., l.t.l., same basis lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50%, bots lb. 2.95 - —
100%, bots. lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., cns. lb. 1.25 - 1.75
dl-Phenylalanine, dms. works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms. 200-lb. lots dlvd. E. lb. 3.45 - —
fib. dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .41 - —
dms., l.c.l., dlvd. E lb. .42 - —
tanks, dlvd. E lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, coml., 100 to 1,000 lbs., fib. dms., works lb. 1.70 - 1.80
p-Phenylenediamine, refd., dms., works lb. 1.42 - —
Tech., dms., works lb. 1.40 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. .76¼- —
Phenylethyl acetate, bots. lb. 1.30 - 1.60
b-Phenylethylamine, dms., 1,000-lb. lots, works lb. 1.10 - —
dms., smaller lots works lb. 1.15 - 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 - 1.50
Standard, dms. lb. 1.10 - 1.60
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E lb. 1.80 - —
fib, dms., smaller lots, dlvd. E lb. 2.10 - —
Phenylethylphenyl acetate, bots. lb. 4.00 - 4.25
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 - —
Philippine copal gum, pale, chips, bgs. lb. .23¾- .26
nubs, bgs. lb. .33¼- .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .22¾- .25
Phloroglucinol, coml., fib. dms., works lb. 6.40 - —
CP, bots., works lb. 17.75 - —
Tech., fib, dms., works lb. 10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ret. cyls., works lb. .15½- —
Phosphate defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 48.00 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. long-ton. 5.16 - —
68-70%, b.p.l., bulk, c.l., same basis long-ton. 5.56 - —
70-72%, b.p.l., bulk, c.l., same basis long-ton. 6.21 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 74-75%, b.p.l., bulk, c.l., same basis long-ton. 7.21 - —
76-77%, b.p.l., c.l., bulk, same basis long-ton. 8.21 - —
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.52.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 - —
cbys., l.c.l., same basis. 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 - —
80%, cbys., c.l., frt. equald 100 lbs. 7.85 - —
cbys., l.c.l., works 100 lbs. 8.10 - 9.35
tanks, t.w., works 100 lbs. 6.00 - —
NF, 85%, cbys., c.l., works. 100 lbs. 8.50 - —
cbys., l.c.l., works 100 lbs. 8.75 - 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20½
dms., l.c.l., works, frt. equald lb. .21½- —
tanks, works, frt. equald lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms., l.c.l., works lb. .14½- .15½
solid, dms., c.l., works lb. .11½- —
dms., l.c.l., works lb. .12½- .13½
Phosphorus pentoxide, dms., c.l., works lb. .1395- .1450
dms., l.c.l., works lb. .1550- .1650
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms., l.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .21 - —
bgs., l.c.l., same basis lb. .22 - —
tanks, same basis lb. .20½- —
Phthalimide, 97-98%, dms., frt. alld lb. .65 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies lb. 2.90 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.52 - —
Pythalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, bbls., works lb. 3.35 - —
Phthalocyanine green toner, resinated, bbls lb. 3.00 - —
Water dispersable, bbls. lb. 1.71 - —
Phthalocyanine green prices 1c. higher W. of Rockies.
Phthalylsulfacetamide, fib. dms., 1,000-lb. lots or more lb. 5.00 - —
NF, fib. dms. lb. 5.20 - —
a-Picoline, dms., c.l., works, frt. equald lb. .43 - .43½
dms., l.c.l., works, frt. equald lb. .44 - —
tanks, same basis lb. .415 - .422
b,g-Picoline, 5°C. dms., c.l., works. lb. .32½- —
dms., l.c.l., works lb. .33 - —
g-Picoline, tanks, f.o.b., works lb. 1.50 - —
dms., t.l., same basis lb. 1.60 - —
Picric acid, NF, bbls. lb. .85 - —
Tech, bbls. lb. .44 - —
Pigment green B, kgs. lb. 1.45 - —
Pilocarpine hydrochloride, USP bots oz. 4.75 - 5.25
Pilocarpine nitrate, USP, bots., vials. oz. 4.65 - 4.75
Pimento, Jamaican, bgs. lb. .65 - —
Mexican, bgs. lb. .33 - —
Pimento berry oil, NF, dms. lb. 3.75 - 9.25
Pimento leaf oil, cns. lb. 1.90 - 2.60
Pine oil, dest.-dist., dms., l.c.l. works lb. .15 - —
dms., l.c.l. ex whse. New York. lb. .173 - —
Steam-dist., dms. ex whse. New York lb. .185 - —
dms., dlvd. lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberica oil)
Pinetar oil, coml., dms., c.l., works. lb. .0561- —
dms., l.c.l., works lb. .0634- —
dms., c.l., ex whse. New York. lb. .0745- —
tanks, works lb. .046 - —
Rectified, NF, dms., included, l.c.l., works, South lb. .40 - —
dms., incl. l.c.l., ex whse., New York lb. .41½- —
Refd., dms., incl., l.c.l., works lb. .35 - —
dms., incl. l.c.l., ex whse. New York lb. .36½- —
Pink root, bls. lb. 2.50 - —
Piperazine, dry, dms., t.l., frt. alld. lb. 1.95 - —
dms., l.c.l., same basis lb. 2.00 - —
Piperazine citrate, 36%, dms., t.l., frt. alld lb. 1.07 - —
dms., l.t.l., same basis lb. 1.09 - —
Piperazine hexahydrated, 44%, dms., frt. alld lb. .88 - —
dms., l.t.l., same basis lb. .90 - —
Piperidine, dist., 98% min., dms., frt. equald lb. 2.70 - —
Piperonyl butoxide, dms., dlvd. E. lb. 4.50 - 5.05

Pitches

Pitch quotations are listed individually. For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum).
Platinum metal, works oz. 54.00 -60.00
Pleurisy root, bls. lb. .45 - .50
Podophyllum resin, NF, dms. lb. 15.60 -16.10
Poke root, bls. lb. .19 - .22
Polymyxin, bulk, bots., 50 billion units or more 1,000,000 units. .52 - —
bulk, bots., 25-50 billion units, 1,000,000 units. .54 - —
bulk, bots., 1-25-billion units, 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms. 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works. lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works. lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Pontianak copal gum, chips, bgs. lb. .26 - —
Nubs, bgs. lb. .27 - .40

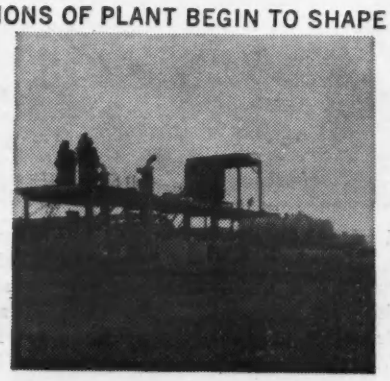
WITCO'S PHTHALIC PLANT NEARS COMPLETION!

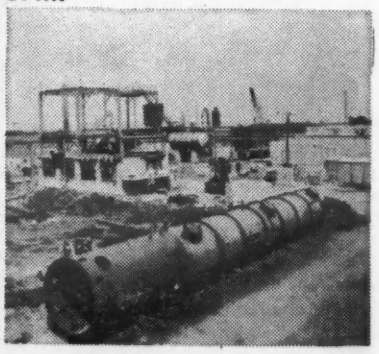
Construction work continues as fast as possible on Witco's new phthalic plant. Structural steel, tanks, reactors, columns will soon be all in place, and the most modern quality control equipment is being installed. When it's on stream in early 1959, Witco's new plant will provide 20,000,000 lbs. annually of highest quality phthalic.

WITCO MEANS QUALITY IN PHTHALIC ANHYDRIDE

Design and Construction by Scientific Design Co., Inc.

SECTIONS OF PLANT BEGIN TO SHAPE UP....





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U.S.I. CHEMICAL NEWS

Oct. ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1958

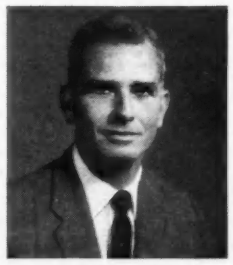
Coppedge Named President of National Distillers

Bierwirth Elected Chairman

John E. Bierwirth, president of National Distillers and Chemical Corporation since 1949, has been elected chairman of the board, and Roy F. Coppedge, Jr., 43, an executive vice-president since May, 1957, has been elected president. The office of chairman has been vacant since 1953.

In their new posts; Mr. Bierwirth and Mr. Coppedge will guide company policy and direct operations. The move was made to provide a broader executive base for the company's growing, diversified business. Net sales in 1957 were $539 million as against $470 million in 1952. Industrial chemicals, petrochemicals and special metals currently account for more than 40% of total operating profits. Total investments in these areas now exceed $190 million.

John E. Bierwirth



Roy F. Coppedge, Jr.

Unique Brake Throttles Flow of Sodium Coolant

Engineers working on the Sodium Reactor Experiment (SRE) at Santa Susana, Cal. have brought a unique solution to the problem of reducing flow of liquid sodium coolant while minimizing thermal stresses on the sodium piping and heat exchanger systems. Flow reduction is sometimes necessary to control rate of temperature change in the reactor core.

Two eddy current brakes — one on the secondary, nonradioactive sodium loop, and the other on the outlet side of the primary loop — straddle the coolant pipes and throttle sodium flow from 1,200 gpm to 12 gpm in two seconds. Thermal stresses on the system are kept well below any damaging level using this braking method.

Attention: Users of Tax-Free Alcohol

The Revenue Ruling covering storage of tax-free alcohol has been expanded for purposes of clarification. The regulation previously stated only that a storeroom which can be securely locked must be provided, of sufficient capacity and substantial construction.

The expanded ruling—No. 58-207—adds that these storerooms may also be used for other supplies, provided they are separated from the alcohol, and provided their presence does not interfere with the proper accounting and safety of the alcohol.

Ion Exchange Resins Act As Catalysts in Acetone Cyanohydrin Production

Acetone cyanohydrin can now be made experimentally by reacting acetone with hydrogen cyanide in the presence of anionic ion-exchange resins. These resins perform effectively as heterogeneous catalysts for the reaction, research workers have discovered.

However, a way must be found to prolong their process life before the transition to a successful commercial operation can be made. A two-stage continuous flow reactor has already been developed in anticipation of a rapid solution to the problem. It employs a feed of acetone and hydrogen cyanide in the mole ratio of 5:1. At 25°C, 99% conversion is achieved. This feed ratio is required to prevent swelling of the resin, moderate the evolution of heat, and displace the equilibrium in favor of acetone cyanohydrin.

The principal use of acetone cyanohydrin is for the preparation of alpha-methacrylic acid and its esters which are polymerized to form methacrylate resins.

Phosphoric Acid Shows Promise as Soil Stabilizer

Recent studies have revealed that 1-10% by weight of phosphoric acid stabilizes the fine-grained soils which must frequently be used as foundations for roads, dams and airstrips, and improves the ability of these soils to bear loads. Until these studies were made, no really satisfactory means had been found for solidifying fine-grained soils, which have strength when dry but not when wet.

Phosphoric acid seems to act by forming an insoluble phosphate glass from particles of alumina and silica in the soil. It can be employed in low concentrations, costs little, works fairly rapidly. Soils cured for a few hours under humid conditions achieve high strengths after several days, and very high strengths after a few weeks.

Depending on the initial water content of the soil being treated, it may be necessary to add small amounts of other materials such as fluosilicates for faster cure and maximum wet strength of the stabilized soil.

Automation Takes Over Communications at U.S.I.; Speeds Chemicals to Customers

Unique New Teletype System for Communications and Electronic Data Processing Links 40 Locations Via 7,500 Miles of Wire. Sales and Plant Personnel Freed of Paper Work.

Taking a cue from the automatic operations of its many chemical and petrochemical plants, U.S.I. has recently extended automation to the clerical side of its business with a tailor-made teletype and data processing system designed primarily to accelerate delivery of chemicals to U.S.I. customers. Specifically, it does these jobs:

- Completes order processing and invoicing with a single typing.
- Is instrumental in production scheduling.
- Compiles sales, order and production statistics.
- Provides statistics for budget and inventory control.
- Handles administrative messages.

U.S.I.'s new teletype setup interconnects 40 plants, shipping points, sales offices and company headquarters in a 7,500-mile network among 27 cities. It is integrated with standard punched-tape coding and programming equipment, that allows immediate reproduction of an original message anywhere along the line. It also acts as an integral part of an electronic data processing operation which makes information currently and simultaneously available to management, sales, production, research, credit, traffic, accounting.

One Typing Completes Order Handling

Here's how it works. Say an order for ethanol is placed in Chicago. An order form is made up at the sales office. In this operation a tape is produced which transmits complete information to the shipping point at Tuscola via teletype. Here the tape automatically produces combination shipping papers and the invoice. At the same time, the information in condensed form is sent to New York and converted to punched cards for data processing.

MORE

Girls at a U.S.I. sales office producing transmittal tapes for orders. Most information is transferred automatically to the tapes from repetitive data tapes and cards.

ADVERTISEMENT—*This entire page is a paid advertisement* *Prepared by U. S. Industrial Chemicals Co.*

Oct. ★ # U.S.I. CHEMICAL NEWS ★ 1958

CONTINUED

Automation

This new automation is proving invaluable to company and customers alike. When a customer needs some special product or rush service, the U.S.I. salesman, relieved of detail by the automated communications system, is free to set an all-out effort in motion to deliver what the customer needs when it's needed.

Switching center at Cincinnati. Here order and message tapes are received from sales offices for redirection to New York headquarters and shipping points throughout the country.

Esters of Alkyl Aryl Phosphoric Acid Cut Static on Polyethylene

Polyethylene articles with a greatly reduced tendency to accumulate electrostatic charges can be made by incorporating certain esters of alkyl aryl phosphoric acid, according to the claims in a recent British patent. In addition, on polyethylene film and sheeting, these esters are said to reduce static without increasing slip or wettability, as do certain nonionic surfactants used for the purpose. They do not affect the flexibility, water and chemical resistance, strength or heat-sealability of the resin in any way, it is asserted.

The ester is uniformly distributed on the surface of the polyethylene in one of two ways. It may be thinly coated onto the surface of the finished article from solution in a volatile solvent, in the amount of 5 to 100 mg/sq. yd. of surface; or it may be incorporated into the granular resin by milling before fabrication, in the amount of 0.05 to 0.25% by weight.

The resulting articles exhibit little or no static, even after prolonged application of friction, according to the patent, and can be surface-treated by usual methods for better bonding with printing inks.

"Atoms-for-Peace" Show Great Success at Geneva

Mallory-Sharon Among Exhibitors

The U.S. Atomic Energy Commission and 50 U.S. industrial firms participated in the commercial exhibition held September 1-14 at the Palais Des Expositions, Geneva, Switzerland in conjunction with the second United Nations International Atoms for Peace Conference.

Focal point of the American section of the exhibition was a full-scale model of the core of a 150,000 KW atomic power plant. A rotunda surrounding the model contained an information center and displays telling the overall story of the U.S. atomic industry. On either side of the rotunda were the exhibits of the 50 participating U.S. companies.

Objectives of the American exhibition were twofold: First, to demonstrate that U.S. industry and government are working co-operatively in the field of atomic energy. Second, to show that in the U.S. atomic energy is a practical reality.

Highlights of the American section were two "live" atomic reactors of the research and training type; a completely equipped, mobile radioisotope laboratory; the showing of atomic energy films; a display of U.S. technical publications; and a new "master slave" robot.

Mallory-Sharon Metals Corporation, Niles, Ohio — world's largest integrated producer of reactive metals — was one of the principal exhibitors at the show. The company, owned one-third by U.S.I.'s parent company National Distillers and Chemical Corp., devoted its display to zirconium for structural and cladding purposes in thermal reactors and to hafnium for control rods.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

Ethanol as a nutrient for cattle, dairy animals and sheep is discussed in a 4-page reprint now available. The alcohol is reported to accelerate rumen microflora metabolism, increasing protein synthesis and cellulose digestion. **No. 1400**

Diethylene glycol dimethyl ether described in new technical bulletin as anhydrous reaction medium for organometallic reactions, solvent for inorganic salts, and for use in synthesis of organoboranes and boron-nitrogen polymers. **No. 1401**

Technical reports made on polyethylene from 1929 to 1957, and now available from the Office of Technical Services of the Dept. of Commerce, are all listed in a 4-page catalog available from Govt. Printing Office for 10¢. **No. 1402**

Copper complex fungicide now offered in pilot plant quantities may also serve as rodenticide. Field tests indicate effectiveness on wide variety of harmful organisms in concentrations between 0.005 and 0.05 per cent. **No. 1403**

Corrosion-resistant metallic filters for fuels and other compounds such as hydrogen peroxide, hydrazine, ethylene oxide and liquid oxygen can now be obtained. Wide range of flow rates and mesh sizes available. **No. 1404**

C^{14}-Labeled isooctane (2,2,4-trimethylpentane-2,4-C^{14}) is now available for hydrocarbon and petroleum research on combustion, and for kinetic and mechanical studies. Specific activities to 5 millicuries/millimole can be made. **No. 1405**

New all-polyethylene acid pump now on the market attaches to any 5-pint reagent bottle. Consists of pump body with relief valve, siphon, spout and 4-ounce squeeze bottle. Claimed to deliver 1,000 milliliters per minute. **No. 1406**

Ion exchange resins are discussed in recently up-dated book which can now be purchased. In 466 pages, the book provides detailed information on the nature and preparation of all types of ion exchange resinous materials. **No. 1407**

New silicone rubber compound, reported to be toughest 25 durometer material now available, is suggested for molded and extruded seals, low pressure gaskets, cushions, other parts. Offers tensile strengths up to 1,000 psi. **No. 1408**

New optical goniometer identifies crystalline substances by simple external measurements of interfacial angles. Catches reflections from various faces in telescope moved around crystal. Claimed accurate, easy to operate. **No. 1409**

PRODUCTS OF U.S.I.

Alcohols: Ethyl (pure and all denatured formulas); Proprietary Denatured Alcohol Solvents SOLOX®, FILMEX®, ANSOL® M, ANSOL PR.

Organic Solvents and Intermediates: Normal Butyl Alcohol, Amyl Alcohol, Fusel Oil, Ethyl Acetate, Normal Butyl Acetate, Diethyl Carbonate, DIATOL®, Diethyl Oxalate, Ethyl Ether, Acetone, Acetoacetanilide, Acetoacet-Ortho-Chloranilide, Acetoacet-Ortho-Toluidide, Ethyl Acetoacetate, Ethyl Benzoylacetate, Ethyl Chloroformate, Ethylene, Ethyl Sodium Oxalacetate, Sodium Ethylate, ISOSEBACIC® Acid, Sebacic Acid, Urethan U.S.P. (Ethyl Carbamate), Riboflavin U.S.P., Pelargonic Acid, 2-Ethyl Heptanoic Acid.

Pharmaceutical Products: DL-Methionine, N-Acetyl-DL-Methionine, Urethan USP, Riboflavin USP, Intermediates.

Heavy Chemicals: Anhydrous Ammonia, Ammonium Nitrate, Nitric Acid, Nitrogen Fertilizer Solutions, Phosphatic Fertilizer Solution, Sulfuric Acid, Caustic Soda, Chlorine, Metallic Sodium, Sodium Peroxide, Sodium Sulfite, Sodium Sulfate.

PETROTHENE® Polyethylene Resins

Animal Feed Products: Antibiotic Feed Supplements, BHT Products (Antioxidant), Calcium Pantothenate, Choline Chloride, CURBAY B-G®, Special Liquid CURBAY, VACATONE®, Menadione (Vitamin K_3), DL-Methionine, MOREA® Premix, Niacin USP, Riboflavin Products, Special Mixes, U.S.I. Permadry, Vitamin B_{12} Feed Supplements, Vitamin D_3, Vitamin E Products, Vitamin E and BHT Products.

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Division of National Distillers and Chemical Corporation
99 Park Avenue, New York 16, N. Y.

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Poppy seed, Argentine, bgs. ....lb. No stocks.
Dutch, bgs. ....lb. .23 - —
Danish, bgs. ....lb. No stocks.
Polish, bgs. ....lb. .33 - —
Turkish, bgs. ....lb. No stocks.

Potash, caustic, liq., 45% basis, dms., c.l., works..100 lbs. 4.25 - —
dms., l.c.l., same basis 100 lbs. 5.05 - —
tanks, same basis ....100 lbs. 3.70 - —
Flake, 88-92%, dms., c.l., same basis 100 lbs. 9.15 - —
dms., l.c.l., same basis 100 lbs.10.20 - —
Solid, 88-92%, dms., c.l., works. 100 lbs. 8.70 - —
dms., l.c.l., works....100 lbs. 9.75 - —

Potassium acetate, NF, dms. ... lb. .31 - .36

Potassium bicarbonate, USP, gran. dms lb. .22 - —
USP, powd., dms. ....lb. .24 - —

Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., l.c.l., works....lb. .18½- .19¾

Potassium bichromate in dms., ½c. higher.

Potassium bitartrate, dom., NF, gran. or powd., dms., c.l. lb. .40 - —
dms., 5,000 lbs., 1 shipt.lb. .40½- —
dms., smaller lots lb. .41 - .43
Imp., NF, gran. or powd., bgs.lb. .33½- .37

Potassium bromate, dms., 1,000-lb. lots or more, works lb. .50 - —
dms., smaller lots, works ....lb. .52 - .62

Potassium bromide, USP, gran., bbls., kgs lb. .39 - .40

Potassium carbonate, dom., NF, gran., bbls., dms lb. .20 - —

Potassium carbonate, dom., tech., powd., bbls., dms. ....lb. .21 - .22
calcined, bgs., c.l., works 100 lbs. 8.50 - —
bgs., l.c.l., same basis.100 lbs. 9.55 - —

Potassium carbonate, hydrated, 83-85%, bgs., c.l., works. 100 lbs. 7.10 - —
bgs., l.c.l., works . 100 lbs. 8.15 - —

Potassium chlorate, cryst., dms., c.l., works lb. .12¼- —
dms., l.c.l., works ....lb. .13½- .14½
Powd., dms., c.l., works ....lb. .12¾- —
dms., l.c.l., works ....lb. .14 - .15
works lb. .12¼- —

Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works. lb. .16¾- —
gran., 25-lb. metal dms. ....lb. .36 - —
powd., dms., 2,000 lbs. or more, works lb. .17¼- —

Potassium chloride, agricultural (see Potassium muriate)
Indust., 99.9% KCL, bulk, c.l., works ..ton.29.00 - —
bgs., c.l., works ....ton.33.50 - —
99.3% KCL, bulk, c.l., works.ton.27.00 - —
bgs., c.l., works ....ton.31.50 - —
USP, cryst., dms. ....lb. .20 - .22
gran., dms. ....lb. .21 - .23
powd., dms. ....lb. .24 - .26

Potassium chromate, tech., bgs. lb. .50 - .50½

Potassium citrate, USP, gran., dms. lb. .43 - —
Powd., dms. ....lb. .40½- .41½

Potassium cyanide, dms. 20,000-lb. lots or more, works lb. .42½- —
dms., 2,000-19,999-lb. lots, works.lb. .43 - —
dms., smaller lots, works ....lb. .44 - .44½

Potassium dichromate (see Potassium bichromate)

Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms., smaller lots, works ....lb. .65 - —

Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms., smaller lots ....lb. .29 - —

Potassium fluoborate, fib. dms., c.l., works lb. .30 - —
fib. dms., l.c.l., works ....lb. .31 - —

Potassium fluoride, dms., works lb. .37 - .38

Potassium gluconate, dms. ....lb. 1.67 - —

Potassium guaiacol sulfonate, NF, dms lb. 2.10 - 2.30

Potassium hydroxide, tech. (see Potash caustic).

Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½- .38

Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 - —

Potassium iodide, USP, cryst., or gran lb. 1.40 - —

Potassium manure salt, 22% K_2O, bulk, c.l., works unit-ton. .17 - .1765

Potassium metabisulfite, gran., dms. lb. .16 - —
Powd., dms. ....lb. .27 - —

Potassium muriate, standard, bulk, c.l., works..unit-ton. .31 - .33
bagged, 60% minimum K_2O, same basis ton.23.50 -24.70
Gran., bulk, c.l., works unit-ton. .31½- .33½
bagged, 60% minimum K_2O, same basis ton.23.80 -25.00

Inside prices apply to material contracted for prior to July 1, 1958.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots..100 lbs.16.50 - —
bbls., smaller lots ....100 lbs.17.50 -18.00
gran., bgs., 20-ton lots..100 lbs. 9.25 - —
bgs., smaller lots ....100 lbs.10.50 -11.00
powd., bgs., 20-ton lots..100 lbs.10.25 - —
bgs., smaller lots ....100 lbs.11.50 -12.00

Potassium oxalate, neutral, tech., fine gran., bbls., dms lb. .32 - .34

Potassium pentaborate, gran., dms., c.l., works ..ton.219.50 - —
dms., ton lots, ex whse. ....ton.311.00 - —
dms., smaller lots, ex whse..ton.316.00 - —

Powdered potassium pentaborate $10 per ton higher.

Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., l.c.l., works ....lb. .19 - .20

Potassium permanganate, coml., kgs., works lb. .26 - .29
USP, dms., works ....lb. .29¼- .31

Potassium persulfate, dms., c.l., works lb. .17½- —
dms., l.c.l., works ....lb. .18 - .21

Potassium pyrophosphate, tetrabasic, dms., works lb. .15½- .18½

Potassium prussiate red (see Potassium ferro-cyanide).

Potassium prussiate yellow (see Potassium ferro-cyanide).

Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 7.25 - 7.65
tanks, works ....100 lbs. 6.15 - —
40.5° Be, 1:2.1, dms., c.l., works. 100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more works..100 lbs. 6.70 - —
tanks, works ....100 lbs. 5.60 - —

Potassium silicate, glass grade, bgs., c.l., works..100 lbs.17.30 -18.15
bgs., l.c.l., works ....100 lbs.17.80 - —
Soln., 29° Be, 1:2.5, dms., c.l., works..100 lbs. 4.95 - —
dms., l.c.l., 5-dm. lots or more, works..100 lbs. 5.70 - —
tanks, works ....100 lbs. 4.60 - —

Potassium silicofluoride, bgs., works..lb. .09½- .10

Potassium silicofluoride in drums, 0.4c. per lb. higher.

Potassium stannate, dms., frt. alld. E..lb. .758 - .831

Potassium sulfate, agricultural, bulk, c.l., works..unit-ton. .59½- .61½

Inside price applies to tonnage contracted for prior to July 1, 1958.

Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms. lb. .31 - .33
Gran., dms. ....lb. .18½- —
Powd., dms. ....lb. .16 - .17

Potassium sulfocyanate, NF, cryst. (see Potassium thiocyanate).

Potassium thiocyanate, NF, cryst., dms., works lb. .96 - .98
Tech., dms., works ....lb. .77 - .79

Potassium titanate, ctns., c.l., works. lb. .16¼- —
ctns., 5-ton lots, works ....lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —

Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price ton.13.45 - —
bulk, works, July forward ton.14.00 - —

Potassium-sodium tartrate, NF, gran. or powd., dms., f.o.b. works lb. .42½- —
dms., 5,000-lb. lots, same basis lb. .43 - —
dms., smaller lots, same basis lb. .43½- .49

Potassium-titanium fluoride, fib. dms., works lb. .39 - .40

Potassium-zirconium fluoride, fib. dms., c.l., works..lb. .50 - —
fib. dms., l.c.l., works....lb. .52½- .55

Potato starch (see Starch, potato).

Pregnenolone, bots. ....gram. No prices
Pregnenolone acetate, bots....gram. No prices

Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld..lb. 2.83 - —
dms., 100-500 lb. lots....lb. 2.95 - 3.15

Progesterone, USP, bots. ....gram. No prices.
Progesterone acetate, bots. ...gram. No prices.

Propane, indust., tanks, group 3, gal. .05 - —
tanks, Baton Rouge ....gal. .05375- —
tanks, New York harbor..gal. .1005- —
(¼c. discount offered).

Propenyl guaethol, dms. ....lb.24.30 -27.00

Propionic acid, syn., pure, dms., c.l., works..lb. .23¼- —
dms., l.c.l., works....lb. .24¼- —
tanks, works ....lb. .20¾- —

n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd. ....lb. .15¾- —
tanks, dlvd. ....lb. .12¼- —

n-Propyl alcohol, dms., c.l., dlvd..lb. .14 - —
dms., l.c.l., dlvd. ....lb. .15 - —
tanks, dlvd. ....lb. .11½- —

n-Propyl gallate, dms., 100 to 2,000-lb. lots, works..lb. 3.90 - 4.40

n-Propyl p-Hydroxybenzoate, USP, dms lb. 2.30 - 2.40

Propyl thiouracil, bots., 50 kilo lots. or more..kilo.55.00 - —
bots., smaller lots ....kilo.55.10 -55.30

n-Propylamine, dms., c.l., dlvd..lb. 1.24 - —
dms., l.c.l., same basis....lb. 1.25 - —

Propylene dichloride, consumers' dms., c.l., dlvd. E lb. .0845- —
dms., l.c.l., same basis ....lb. .0950- —
tanks, same basis ....lb. .07 - —

Propylene dichloride prices in West 1c. higher, same basis.

Propylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis ....lb. .17 - —
tanks, same basis ....lb. .13½- —

USP, dms., c.l., dlvd. E ....lb. .18 - —
dms., l.c.l., same basis....lb. .19 - —
tanks, same basis ....lb. .15½- —

Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis....lb. .21 - —
tanks, same basis ....lb. .18½- —

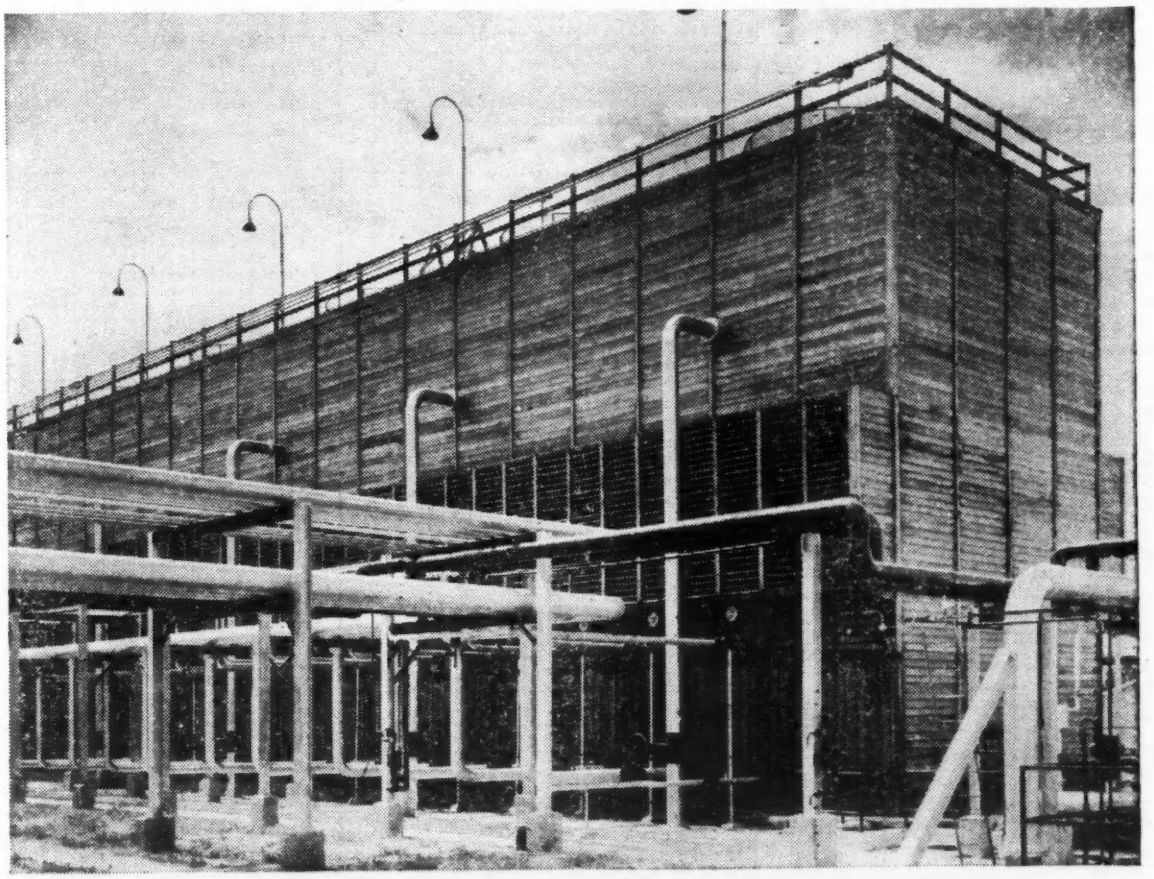
Propylene oxide, dms., c.l., dlvd. E. lb. .18 - —
dms., l.c.l., dlvd. E ....lb. .19 - —
tanks, dlvd E ....lb. .15½- —

Psyllium seed, black, bgs. ....lb. .32 - .34
Blonde, bgs. ....lb. .16 - .18
Husks, bgs. ....lb. .39 - —

Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03⅝- .04¼
bgs., smaller lots ....lb. .03⅞- —
Imp., Italian, silk-screen, coarse bgs., ton lots lb. .06½- —
fine, bgs.. ton lots ....lb. .04 - —
sun dried, coarse, bgs ton.60.00 - —
fine, bgs. ....ton.60.00 -70.00

Pumpkin seed, bgs. ....lb. .25 - .26

Pyrethrins, syn. (see Allethrin).



CHROMATE COMPOUNDS STOP CORROSION *before it starts!*

Long before the first drop of water contacts metal in any large recirculating water system, steps should be taken to prevent corrosion.

Early in the design stage, plan on adding a chromate inhibiting compound to recirculating water—from the moment operation starts. That way, clean metal stays clean. Chromate inhibiting compounds will also arrest corrosion in older systems that have been operating without protection, even where rust and scale make it more difficult for inhibitors to reach and protect the metal.

Chromates work two ways: they make waters non-corrosive while making metal surfaces corrosion-resistant. Chromate inhibiting compounds are easy and inexpensive to use. Since conditions and equipment vary, a variety of compounds are available to meet individual requirements.

For the names of manufacturers of corrosion inhibiting compounds containing Mutual Chromium Chemicals, or information on Mutual Chromium Chemicals, mail the coupon below.

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Sodium Bichromate
Sodium Chromate
Chromic Acid
Potassium Bichromate
Potassium Chromate
Ammonium Bichromate
Korean (one-bath chrome tan)

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Name_____ Position_____
Company_____
Street_____
City_____ Zone____ State_____
3-10

Pyrethrum flowers, fine grd., 0.9% pyrethrins, bbls., works lb. .45 - —
Powd., 1.3% pyrethrins, bbls., works lb. .65 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works gal. 8.75 - 8.95
100/1 basis (10 grams pyrethrins per 100cc odorless base), dms., works gal. 41.75 - 42.75
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb. 10.00 - —
purif, 20% dms., works lb. 10.00 - 10.10
Pyridine, denat., dms. c.l., works and frt. equald gal. 2.77 - —
dms. l.c.l., same basis gal. 2.80 - —
Refd., 2° non-ret. dms., l.c.l., same basis lb. .75 - —
Pyridoxine hydrochloride, bots., 500-gram lots or more kilo. 218.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol)
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls. lb. 3.17 - 3.25
Pyrogallol, NF, 100 lb. dms. lb. 3.50 - —
Pyroxylin, USP, bots. lb. 9.50 - —

Q

Quassia chips lb. .17 - —
Quebracho extract, clarified, grd., 70% tannin, bgs., works lb. .16½ - .17
Clarified, liq., 35% tannin, bbls., works lb. .08¼ - .08½
Solid, 64% tannin, bgs., c.l., ex dock lb. .106718 - —
Ordinary solid, 63% tannin bgs., c.l., same basis lb. .099228 - —
Quercetin, fib. dms. kilo lots kilo. 26.40 - —
Quercitron extract, cryst., No. 1, bbls., l.c.l. lb. .40 - —
Liq., No. 1, bbls., l.c.l. lb. .19 - —
Quicksilver (see Mercury metal)
Quince seed, bgs. lb. 1.15 - 1.50
Quinidine sulfate, USP, cns., 1,000-oz. lots oz. .74½ - .75
Quinine, NF, cns., 100-oz. lots oz. .54 - —
Quinine bisulfate, USP, cns., 100-oz. lots oz. .28 - .29
Quinine hydrochloride, cns., 1,000-oz. lots oz. .32 - —
Quinine sulfate, USP, cns., 1,000-oz. lots oz. .27½ - .29
Quinoline, dms., c.l., frt. equald lb. .50¾ - —
dms., l.c.l., same basis lb. .51¼ - —
tanks, same basis lb. .50 - —

R

R salt, paste, dms. frt. alld., 100% basis lb. .33 - —
Powd. frt. alld. 100% basis lb. .98 - —
Rapeseed oil, dms. lb. .16½ - .17
tanks lb. .15 - —
Rare earth oxalate, 45-50%, bgs., works lb. 1.00 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - —
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid)

Red Pigments

Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red, saunders, NF, powd., bbls. lb. .35 - .40
Reserpine, cryst., bots. gram. 1.25 - 1.40
Resorcinol, tech. grade, dms., c.l., works, frt. equald lb. .77½ - —
dms., l.c.l., same basis lb. .78½ - —
USP, cryst., dms., works lb. 2.75 - —
powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
Rhatany root, bgs. lb. .15 - .16
Rhodamine red toner, molybdated, PMA, kgs. lb. 6.00 - —
Tungstated, PTMA, works, kgs. lb. 6.60 - —
Rhodinol, 5-lb. cans lb. 43.00 - 46.00
Synthetic lb. 11.00 - 16.00
Rhubarb root, India, whole, bgs. lb. .30 - —
powd., bgs. lb. .38 - —
Riboflavin, USP, fib. dms., kilo or more dlvd. kilo. 40.00 - —
USP, readily soluble, bots., dlvd. kilo. 130.00 - —
Riboflavin, 5-phosphate-sodium fib. dms., kilo or more dlvd. kilo. 107.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .15½ - —
tanks, dlvd. E lb. .13½ - —
Rice starch (see Starch rice).
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots. oz. 72.00 - —
Turkish, bots. oz. 55.00 - 58.00
Rosemary oil, Spanish, NF, cns., dms. lb. 1.05 - 1.65
tech., cns., dms. lb. .50 - 1.20
Rosin, gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, unit-lb. .12 - —
resin, 25-45%, fib. dms., works, unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾ - —
bgs., ton lots, same basis lb. .04¼ - —
Rubber solvent, petroleum tanks, Calif. ex tax, San Francisco gal. .178 - —
tanks, east coast, N. J., N. Y. gal. .19 - —
tanks, group 3 gal. .13375 - —
Rue oil, bots. lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots kilo. 16.50 - —
fib. dms., 5 kilo lots kilo. 17.00 - —
fib. dms., 1 kilo kilo. 18.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
USP, gran., soluble, dms., 1,000-lb. lots lb. 1.60 - —
dms., smaller lots lb. 1.70 - 1.80
USP, powd., soluble insoluble, dms., 1,000-lb. lots lb. 1.65 - —
dms., smaller lots lb. 1.75 - 1.93
Safflower oil, dms., New York lb. .1785 - .1825
tanks, Atl. Coast lb. .1565 - —
Safrol, dms. lb. .80 - .93
Saffron, Manchia Superior, tins lb. 34.00 - —
Sage, Dalmatian, bgs. lb. .36 - .40
Greek, cns. lb. .14 - —
Italian, cns. lb. .15 - —
Sage oil, clary, bots. lb. 25.00 - 32.00
Dalmatian, cns. lb. 3.75 - 4.00
Spanish, cns. lb. 1.20 - 1.45
Sago flour, raw bgs. lb. .07 - .07¼
Refd., bgs. lb. .09 - .09¼
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b. plant, frt. equald lb. 1.23 - —
dms., l.c.l., same basis lb. 1.25 - —
Salicylamide, 100-lb. dms. lb. 1.00 - 1.10
Salicylic acid, crude, fib. dms., c.l., t.l., frt. alld. lb. .37¼ - —
fib. dms., l.c.l., frt. alld. on 100 lbs. or more lb. .38½ - —
Sublimed, tech., fib. dms., c.l., t.l., dlvd lb. .39¼ - —
fib. dms., l.c.l., dlvd. lb. .43½ - —
USP, cryst., 200-lb. fib. dms., 1,000-lbs. or more lb. .50½ - —
200-lb. fib. dms., less than 1,000 lbs. .53½ - —
100-lb. fib. dms., 1,000-lbs. or more lb. .52½ - —
100-lb. fib. dms., less than 1,000 lbs. lb. .55½ - —
Powd., 100 lb. fib. dms., 1,000 lbs. or more lb. .57½ - —
100-lb. fib. dms., less than 1,000 lbs. lb. .60½ - —
Salol, NF, gran., bbls., kgs. lb. 1.20 - —
Powdered salol, 25c per lb. higher
Salt, rock, paper bgs., c.l., 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton. 28.00 - —
Saltpeter (see Potassium nitrate)
Sandalwood, E. Indian, chips, bgs. lb. .65 - .66
powd., fib. dms. lb. .75 - .76
Sandalwood oil, cns. lb. 13.25 - 14.75
Sardine oil, crude, tanks, Pac. coast. lb. No stocks
Sassafras oil, artif., dms. lb. .58 - .75
Nat., dom., dms. lb. 1.70 - 2.15
Savin oil, USP, cns. lb. 7.50 - —
Savory oil, cns. lb. 4.25 - —
Schaeffer's salt paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld. 100% basis lb. .95 - —
Scopolamine hydrobromide, USP, bots. oz. 13.00 - 15.90
Sebacic acid, CP, dms., c.l., works. lb. .69½ - —
dms., l.c.l., works lb. .71½ - —
Purified, dms., c.l., works lb. .65½ - —
dms., l.c.l., works lb. .67½ - —
Seidlitz mixture, fib. dms., 5,000-lb. lots oz. .30½ - —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls. lb. 2.10 - —
Senna leaves, Alexandria, whole and half, bls. lb. .19 - —
siftings lb. .17 - —
Tinnevelly, No. 1, bls. lb. .19 - .20
No. 2, bls. lb. .16 - .17
No. 3, bls. lb. .14 - —
pods, bls. lb. .30 - —
powd., bbls., bxs. lb. .17 - —
Serpentaria root, bls. lb. 6.50 - 7.00
Sesame oil, USP, dms. lb. .38 - .39
Sesame seed, Columbian, bgs. lb. .15½ - —
Lebanese, hulled, bgs. lb. .19 - —
Nicaraguan, hulled Shipt., bgs. lb. .24½ - —
nat., bgs. lb. .16 - —
Salvadorian, nat., bgs. lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .46 - —
bbls., 1,500-lb. lots lb. .47 - —
kgs., 1,500-lb. lots lb. .48 - —

Bonedry shellac prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.

Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .38 - .39
lemon No. 2, bgs., 10-bg. lots lb. .36 - .37
superfine, bgs., 10-bg. lots lb. .34 - .35
TN, bgs., 10-bg. lots lb. No Stocks

Shellac in 1 to 10-bg. lots 1c. per lb. more.

Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½ - .18½
paper bgs., l.c.l., works lb. .06¾ - .17¾
Raw, paper bgs., c.l., works lb. .06¾ - .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton. 25.00 - —
bgs., l.c.l., works, ex whse. ton. 45.00 - 55.00
hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton. 20.00 - —
bgs., l.c.l., works ton. 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton. 15.00 - —
bgs., l.c.l., works ton. 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .22 - .30½
tanks, works lb. .17 - —
Silver bullion, ingots, cs. Troy oz. .89¾ - —
Silver cyanide, bots., 1,000-oz. lots, oz. No Prices.
bots., 500-oz. lots oz. No Prices.
bots., 100-oz. lots oz. No Prices.
Silver nitrate, CP, cryst., bots., 2,500-oz. lots oz. No Prices.
bots., 1,000-oz. lots oz. No Prices.
bots., 500-oz. lots oz. No Prices.
bots., 250-oz. lots oz. No Prices.

USP granular silver nitrate 4c. per oz. higher.

Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots., dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns. lb. 45.00 - 60.00
Soapbark, crushed, bls. lb. .35 - —
Powd., bls. lb. .35 - —
Whole, bls. lb. .30 - —
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100-lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
Liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
73%, sellers' tanks, works, dry basis 100 lbs. 3.00 - —
Soda, caustic, liq., 73%, rayon type, sellers' tanks, works, dry basis 100 lbs. 3.00 - 3.10
Solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works, 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½ - —
bgs., l.c.l., same basis lb. .16½ - —
NF, 60%, gran., dms., c.l., works, lb. .15½ - —
dms., l.c.l., wors lb. .17½ - —
Sodium alginate, NF, white powd., dms., 300 lbs. or more lb. .93 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 2.70 - —
Sodium antimoniate, bgs., c.l., dlvd, E lb. .25½ - —
bgs., l.c.l., dlvd. E lb. .27 - —
Sodium arsenate, 60% arsenic pentoxide, dealers, dms., ton or more, works lb. .26 - —
dms., less than ton lots, works lb. .26½ - —
Sodium arsenite 90% pink powder, 75% arsenious oxide, dealers, dms., ton lots or more, works lb. .17½ - —
dms., less than ton lots, works lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo lots kilo. 10.00 - —
dms., 10-kilo lots kilo. 10.35 - —
dms., 5-kilo lots kilo. 10.75 - —
dms., 1-kilo lots kilo. 11.00 - —
bots., 500-gram. bots. kilo. 11.50 - —
Sodium benzoate, tech. c.l., t.l., frt. alld. lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP, c.l., t.l., frt. alld. lb. .38 - —
ton lots, same basis lb. .43 - —
1,000-lb. lots, same basis lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l. t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13½ - .14¾
Sodium bifluoride, bbls., c.l., works, frt. equald lb. .19½ - —
bbls., l.c.l., same basis lb. .1990 - —
Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10
Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs. 5.45 - —
Soln., 35°, bbls., c.l., works 100 lbs. 1.70 - —
bbls., l.c.l., works 100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½ - .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .03 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾ - —
fib. dms., l.c.l., works lb. .15¼ - .16½
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works lb. .1015 - —
bgs., l.c.l. lb. .1065 - .1190
Sodium citrate, anhyd., dms. lb. .62 - —
NF, VIII, gran., dms. lb. .26½ - .27½
USP, XIV, gran., dms. lb. .29½ - .30½
Sodium citrate, USP powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 - 1.10
Sodium cyanide, flake, 96-98%, dms., c.l. or 20,000-lb. lots lb. .193 - —
dms., over 1,000-lb. lots lb. .203 - —
dms., 100-lb. to 1,000-lb. lots lb. .213 - —

Gran. sodium cyanide 1c. higher.

Sodium diacetate, 33-35% acidity, 250-lb. dms., works lb. .13 - —
250-lb. dms., l.c.l., works lb. .15¾ - —
Anhyd., dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .18¾ - —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., l.t.l., same basis lb. .47 - .52
tanks, same basis lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½ - —
bgs., smaller lots lb. .14 - —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390 - —
fib. dms., l.c.l., works, frt. equald lb. .1430 - —
Sodium formate, bgs., c.l., works, 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., dms. lb. .84 - —
Tech., dms., bgs. lb. .37 - .39
Sodium hydride, powd., dms., works. lb. 1.90 - 2.75
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite, dms., c.l., frt. alld. lb. .23¾ - —
dms., l.c.l., frt. alld. lb. .24¾ - —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. lb. .23½ - .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots lb. .97 - —
Sodium hyposulfite, anhyd., photo grade, bgs., c.l., works, 100 lbs. 7.50 - 8.05
bgs., l.c.l., works 100 lbs. 7.89 - 8.45
Sodium hyposulfite, tech. bgs., c.l., works 100 lbs. 7.25 - —
bgs., l.c.l., works 100 lbs. 7.60 - —
Sodium hyposulfite hexahydrate, pea., cryst., bgs., c.l., works 100 lbs. 5.15 - —
bgs., l.c.l. works 100 lbs. 5.55 - —
Sodium hyposulfite hexahydrate, photo grade, bgs., c.l., works, 100 lbs. 7.75 - —
bgs., l.c.l., works 100 lbs. 8.05 - —
Sodium hyposulfite pentahydrate, tech., bgs., c.l., works, 100 lbs. 4.65 - 5.15
bgs., l.c.l., works 100 lbs. 4.90 - 5.55
Sodium iodide, USP, 300-lb. dm. lb. 1.98 - —
Sodium lactate, edible, 60%, cbys., dms., works lb. .26½ - —
Sodium lauryl sulfate, dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd. lb. .19½ - .20¾
tanks, dlvd. lb. .18 - —
Sodium metabisulfite (see Sodium bisulfite).
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - 6.50
l.c.l., bgs., works 100 lbs. 4.40 - 7.00
Sodium metaborate octahydrate, gran., bgs., c.l. works ton. 92.00 - —
bgs., ton lots, ex whse. ton. 150.00 - —
bgs., smaller lots, ex whse. ton. 155.00 - —
Sodium metaborate tetrahydrate, bgs., c.l. works ton. 200.00 - —
bgs., ton lots, ex whse. ton. 268.50 - —
bgs., smaller lots, ex whse. ton. 273.50 - —
Sodium, metallic bricks, c.l. works. lb. .19½ - —
Fused, 18,000-lb. lots or more, works lb. .19 - —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
gran., fib. dms. lb. .17½ - .18
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 - .96
Cryst., dms., works, frt. alld. lb. .73 - .74
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls., lb. .70 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton. 48.75 - —
bulk, c.l., works ton. 45.25 - —
Imp., 100-lb. bgs., c.l., Atl., Gulf, Pac., whse. ton. 49.75 - —
bulk, c.l., same basis ton. 46.25 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs. 11.00 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Sodium orthosilicate, hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls, l.c.l., works 100 lbs. 7.60 - 7.90
Sodium oxalate, 98%, bgs., works. 100 lbs. 12.35 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, bgs., c.l., works, frt. equald lb. .26 - —
bgs., l.c.l., same basis lb. .27½ - .34
Pellets, bgs., c.l., same basis lb. .26 - —
bgs., l.c.l., same basis lb. .27½ - .34
Sodium pentachlorophenate, powd., bgs., dms., c.l., same basis lb. .25 - —
bgs., dms., l.c.l., same basis lb. .26½ - .33
Sodium pentachlorophenate, 20,000 lbs., min. truckloads, ¼c. per lb. over carlot prices.
Sodium pentobarbital, USP, dms., 100 lbs. or more lb. 6.00 - —
Sodium perborate, NF, tech., bgs., c.l., works lb. .19 - —
bgs., l.c.l., works lb. .21 - —
Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss. lb. .20½ - —
dms., l.c.l., same basis lb. .21 - .21½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 - —
Sodium phenolsulfonate, USP, IX, gran., dms. lb. .50 - .51
NF, powd., dms. lb. .53 - .54
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald, 100 lbs. 7.95 - —
bgs., l.c.l., same basis 100 lbs. 8.35 - 9.40
duohydrate, bgs., c.l., frt. equald. 100 lbs. 7.60 - —
bgs., l.c.l., same basis 100 lbs. 8.10 - —
USP, dried, powd., bgs., dms., works lb. .19 - .20¼
Sodium phosphate, monobasic, anhyd., bgs., c.l., frt. equald, 100 lbs. 9.00 - —
bgs., l.c.l., same basis 100 lbs. 9.40 - 10.00
Sodium phosphate, tribasic, anhyd., bgs., c.l., frt. equald, 100 lbs. 9.05 - —
bgs., l.c.l. frt. equald. 100 lbs. 9.45 - 10.05
Cryst., bgs., c.l., t.l., frt. equald, 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald 100 lbs. 5.00 - 5.75
Sodium phosphate in dms. 60c to 80c, higher than bgs.
Sodium prussiate, yellow (see Sodium ferrocyanide).
Sodium pyrophosphate acid, bgs., c.l., works, frt. equald, 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - 12.35
Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39
Sodium pyrophosphate, tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l., same basis 100 lbs. 9.21 - 9.71
Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½ - —
dms., less than 1,000 lbs. dms. lb. .81½ - —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. zone 4 100 lbs. 5.35 - 5.60

Sales zones are: (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss., south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms., c.l., t.l., works 100 lbs. 6.20 - —
hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 5.35 - —
Sodium sesquisilicate, hydrated, dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be, turbid, 1:3.2, dms., c.l., works. 100 lbs. 1.55 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works 100 lbs. 1.20 - —

Sodium silicate, liq., 47° Be, turbid, 1:2.9, dms., c.l., works, 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 - —
52° Be, turbid, 1:2.4, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1:3.2, bgs., works ton.67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .069 - —
Sodium silicofluoride in dms., 0.4c. per lb. higher.
Sodium stannate, dms., works, frt. alld. E lb. .613 - .672
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate, bbls., works lb. .22 - —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E ton.54.00 - —
detergent, rayon grade, bgs., c.l., works ton.36.00 - —
bulk, c.l., works ton.32.00 - —
USP, cryst., fib. dms. lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works frt. equald. lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 - —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., bgs., c.l. works 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 7.95 - —
Tech, bgs., c.l., works 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —
Sodium sulfocyanide, CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax)
Sodium tetrasulfide, liq., 40% dms., c.l., works, frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05½- —
Sodium thiocyanate, CP, dms lb. .55 - .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —
Sodium thiosulfate, NF, cryst. bbls. lb. .13½- —
Sodium thiosulfate, tech. (see Sodium hyposulfite).
Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton or less, works lb. .14¾- —
Sodium trichloroacetate, 94%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb. cns., c.l., frt. alld. E. lb. .42 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.
Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 8.16 - —
bgs., l.c.l., same basis 100 lbs. 8.56 - 9.06
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works 100 lbs. 9.70 -13.13
dms., c.l., works 100 lbs. 9.45 - —
dms., l.c.l., works 100 lbs.10.20 -10.60
Sodium tungstate, tech., kgs. dlvd. E lb. 1.18 Nom.
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium-formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., same basis lb. .21½- —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib., dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt. equald gal. .30 - .35½
Solvent naphtha, petroleum, aromatic 312°-365°F, b.r., 17.2°C. m.a.p., tanks, New Jersey gal. .31 - —
315°-350°F, b.r., 17.2°C. m.a.p., tanks, Texas City gal. .35 - —
342°-351°F, b.r., 15°C. m.a.p., tanks, Baytown, Texas gal. .29 - —
319°-348°F, b.r., 16.5°C, m.a.p., tanks, Houston gal. .32 - —
322°-350°F, b.r., 17.2°C, m.a.p., tanks, Baytown, Tex. gal. .29 - —
334°-392°F, b.r., 19°C, m.a.p., tanks, Philadelphia gal. .25 - —
362°-412°F, b.r., 17.5°C, m.a.p., tanks, Houston gal. .32 - —
365°-404°F, b.r., 19°C, m.a.p., tanks, New Jersey gal. .32 - —
367°-421°F, b.r., 20°C, m.a.p., tanks, Baytown, Tex. gal. .30 - —
Solvent naphtha, petroleum, partial aromatic, 205°-282°F, b.r., 38°C, m.a.p., tanks, New Jersey gal. .24 - —
211°-277°F, b.r., 25.6°C, m.a.p., tanks, New York, New Jersey gal. .28 - —
212°-293°F, b.r., 38°C, m.a.p., tanks, Philadelphia gal. .24 - —
221°-278°F, b.r., 34.8°C, m.a.p., tanks, Houston gal. .20 - —
266°-374°F, b.r., 24°C, m.a.p., tanks, Philadelphia gal. .25 - —
283°-285°F, b.r., 41.6°C, m.a.p., tanks, Houston gal. .25 - —
284°-383°F, b.r., 35°C, m.a.p., tanks, Philadelphia gal. .27 - —
357°-403°F, b.r., 34°C, m.a.p., tanks, Houston gal. .26 - —
358°-401°F, b.r., 24.4°C, m.a.p., tanks, New Jersey gal. .38 - —
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .33 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .35 - —
fib. dms., smaller lots, works lb. .38 - .40
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works lb. .34 - —
fib. dms., 10,000 to 20-000-lb. lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41
Sorbitol, cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb. .25 - .26
Powd., dms., c.l., works lb. .36 - —
dms., 1 to 5-ton lots, works. lb. .38 - .39
Soln., coml., aqueous, dms., c.l., works lb. .24¼- —
dms., ton lots, works lb. .25 - —
dms., smaller lots, works lb. .25¼- —
tanks, works lb. .23¼- —
NF, reg., 70% aqueous, dms., c.l., works lb. .16 - —
dms., ton lots, works lb. .16¾- —
dms., smaller lots, works lb. 17 - —
tanks, works lb. .15 - —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works lb. .23½- —
Chemically isolated, new process, bgs., c.l., works lb. .19 - —
bgs., l.c.l., works lb. .19½- —
Soybean meal, 44% bulk, Decatur, ton.53.00 - —

Soybean oil, crude, tanks, Decatur, lb. .10¼- —
Foots, soapstock, acid 95%, tanks, N. Y. lb. .04¾- —
Refd., alkali, dms. lb. .1485- .1515
tanks lb. .1285- —
Clarified, dms. lb. .1435- .1465
tanks lb. .1235- —
Salad, dms. lb. .14¾- .15
tanks lb. .12¾- —
Soybean oil acids, dbl. dist., dms., lb. .19 - .21½
tanks lb. .16½- —
S. D., dms. lb. .17¾- .20¼
tanks lb. .15¼- —
Soybean pitch, dms., works lb. .05 - .05¼
Sparteine sulfate, cns. oz. .80 - .90
Spearmint leaves, dom., bls. lb. .75 - —
Spearmint oil, NF, dms. lb. 6.00 - 7.10
Sperm oil, bleached, winter, 45°, dms lb. .1625- .17
tanks lb. .1450- —
Nat., winter, 45°, dms. lb. .1525- .16
tanks lb. .1350- —
Spermaceti wax, blocks, cs. lb. .31 - .34
Cakes, cs. lb. .32 - .34
Spruce extract, liq., reg. tanks, works lb. .01¾- —
Powd., super, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works lb. .05½- —
Spruce oil, cns., dms. lb. 2.10 - 3.55
Squill, white, bls. lb. .16 - .18
powd., bbls., bxs. lb. .17 - .20
St. John's bread, edible, bls. lb. .14 - .16
Stannic chloride, anhyd., dms., works lb. .771 - .781
Stannic oxide, dms., dlvd. lb. 1.04½- 1.05½
Stannous chloride, anhyd. dms., works lb. .971 - 1.465
Stannous chloride, hydrous, cryst., dms., works lb. .84 - .85
Stannous sulfate, dms., works lb. 1.027 - 1.047

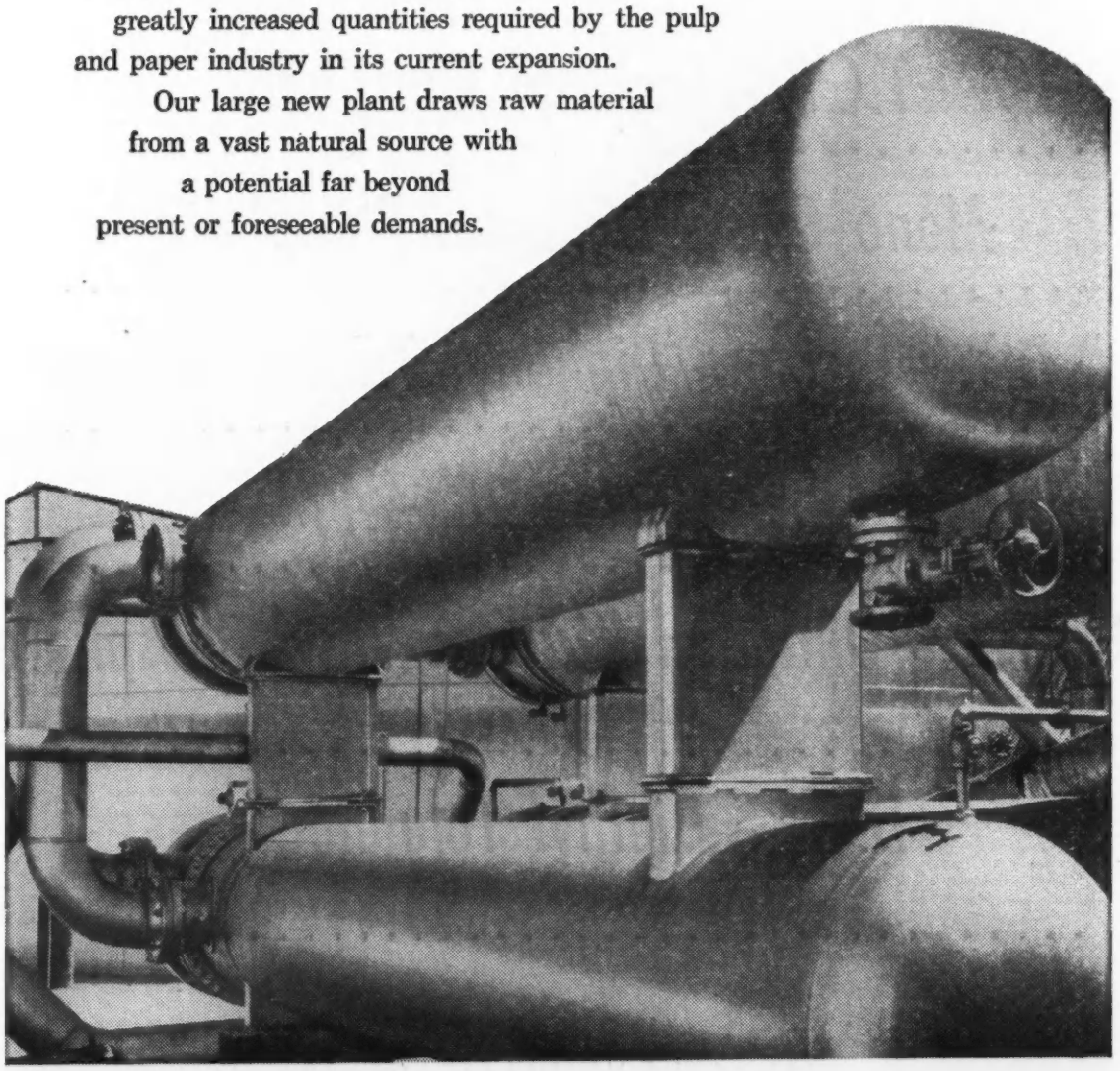
Starch, corn, pearl, paper bgs., c.l., 100 lbs. 7.38 - —
paper bgs., l.c.l. 100 lbs. 7.53 - —
Powd., paper bgs., c.l. 100 lbs. 7.50 - —
paper bgs., l.c.l. 100 lbs. 7.65 - —
Prices for corn starch in cotton bags, 15c. per 100 lbs. higher.
Starch, potato, dom., Idaho, bgs., c.l., works lb. .0580- —
Maine, bgs., c.l., works lb. .06 - —
bgs., l.c.l., ex whse, New York. lb. .08¼- .09¼
Starch, rice, bgs., ex whse. lb. .14 - .15
Starch, wheat, bgs. lb. .08½- .09
Star root (see Helonias root).
Stargrass root (see Aletris root).
Stavesacre seed, bgs. lb. .60 - .61
Stearic acid, dbl., pressed, bgs lb. .16½- .19
Single-pressed, bgs. lb. .16 - .18½
Triple-pressed, bgs. lb. .18¾- .19¼
Stearine, oleo (see Oleostearine).
Stoddard solvent, petroleum tanks, east coast, New Jersey, New York gal. .18 - —
tanks, western Pennsylvania. gal. .16 - —
tanks, group 3 gal. .13375- —
tankwagon, Boston gal. .20 - —
Chicago gal. .209 - —
Cleveland gal. .23½- —
Los Angeles, ex tax gal. .199 - —
Newark gal. .19 - —
New York gal. .19 - —
Philadelphia gal. .19½- —
Pittsburgh gal. .19 - —

Stramonium leaves, bgs lb. .16 - .19
Streptomycin hydrochloride, bulk, gram. .0850- .0875
Streptomycin sulfate, bulk gram. .0850- .0875
Strontium bromide, NF, cryst., 150-lb. fib. dms lb. .84 - —
Strontium carbonate, pure, dms., 5-ton lots or more, works lb. .35 - —
dms., 1-ton lots, works lb. .37 - —
Tech., dms., works lb. .19 - —
Strontium chromate, fib. dms., works. lb. .49 - —
Strontium iodide, jars, 25-lb. lots. lb. 3.57 - —
Strontium nitrate, bgs., c.l., works. 100 lbs.11.00 - —
bgs., l.c.l., works 100 lbs. 12.00 - —
Strontium salicylate, NF, dms. lb. 1.83 - —
Strontium sulfate, air floated, 90% 325 mesh, bgs., works ton.56.70 -66.15
Strophanthin G (see Ouabain, USP).
Strophanthin K, bots. oz 25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75
Styrax gum, USP, cs. lb. 3.00 Nom.
Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld. lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .14½- —

SALT CAKE is a primary West End product and we have the production capacity to meet your needs

At West End, salt cake is a prime product... not a by-product... and is being produced in the greatly increased quantities required by the pulp and paper industry in its current expansion.

Our large new plant draws raw material from a vast natural source with a potential far beyond present or foreseeable demands.



WEST END

West End Chemical Company

DIVISION OF STAUFFER CHEMICAL COMPANY

EXECUTIVE OFFICES, 1956 WEBSTER, OAKLAND 12, CALIF. • PLANT, WESTEND, CALIF.

SODA ASH • BORAX • SODIUM SULFATE • SALT CAKE • HYDRATED LIME

Styrene Monomer—Tetraethylenepentamine

Styrene monomer, tech., 99.2%, dms., c.l. lb. .1517- —
dms., l.c.l., same basis lb. .1717- —
tanks, bulk, same basis lb. .1267- —

Above prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.

Styrolyl acetate, bots. lb. 1.25 - 1.45
Succinic acid, purif., cryst., bbls., works lb. .62 - .75
Sucrose, refd., white, bgs., refy. E. lb. .0935- —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. .84 - —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb. ctns., works lb. .65 - .75
80-lb. ctns., spot lb. .67¼- .72½
Sulfabenzamide, dms. kilo. 8.80 - 9.90
Sulfabenzamide-sodium, dms. kilo. 9.00 -10.10
Sulfacetamide USP fib. dms. kilo. 7.70 - 8.80
Sulfacetamide-sodium, USP, fib. dms kilo. 8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms. kilo.23.35 -24.45
powd., dms. kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms. kilo.24.80 25.90
Sulfaguanidine, NF X, dms. kilo. 5.50 - 6.60
Sulfamerazine, USP, microcrystals, dms. kilo.23.50 -24.60
Sulfamerazine-sodium, USP, powd., dms. kilo.24.80 -25.90
Sulfamethazine, microcrystals, USP XV, dms. kilo.19.65 -20.75
Powd., dms. kilo.18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs.16.00 - —
dms., l.c.l., l.t.l., works 100 lbs.17.50 -18.50
100 lbs. or more lb. 6.00 - —
Gran., dms., c.l., t.l., works, 100 lbs.14.75 - —
dms., l.c.l., l.t.l., works 100 lbs.16.25 -17.25
Sulfanilamide NF X, 30-80 mesh, dms. kilo. 3.05 - 3.50
NF X, microcrystals, dms. kilo. 3.79 - 4.20
NF X, powd., dms. kilo. 2.85 - 3.30
Sulfanilamide quinoxaline, veterinary, dms. kilo.14.12 -14.85
Sulfanic acid, tech., dms., c.l., frt. alld. lb. .21 - —
dms., l.c.l., frt. alld. lb. .23 - —
Sulfapyridine USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms. kilo.16.55 -17.65
Sulfathiazole, NF X, powd. dms. kilo. 5.50 - 5.35
microcrystals, dms. kilo. 6.25 - 6.60
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 - —
Sulfur, coml., flour, bgs., mines, 100 lbs. 2.45 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.35 - —
bbls., mines 100 lbs. 2.90 - —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton.23.50 - —
Export, f.o.b. vessels Gulf ports long-ton.25.00 - —
US and Canada, f.o.b. vessels Gulf ports, long-ton.25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower.
Sulfur, crude, bulk, imp., Mexican, filtered, f.o.b., vessel, Coatzacoalcos long-ton.24.00 - —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd. flowers, NF, bgs., mines 100 lbs. 5.15 - —
bbls., mines 100 lbs. 6.50 - —
flour, light, bgs., mines 100 lbs. 4.75 - —
bbls., mines 100 lbs. 5.75 - —
lump bgs., mines 100 lbs. 4.45 - —
rolls, bgs., mines 100 lbs. 5.00 - —
bbls., mines 100 lbs. 5.75 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, coml., reg., bgs., mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
98-100%, passing through 325 mesh, bgs., mines 100 lbs. 2.05 - —
bbls., mines 100 lbs. 3.90 - —
refd., bgs., mines 100 lbs. 4.40 - —
bbls., mines 100 lbs. 5.55 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.85 - —
bbls., mines 100 lbs. 4.10 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .04¼- —
ret. dms., l.c.l., same basis lb. .05¼- —
tanks, same basis lb. .04 - —
Sulfur dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —
Refrigeration, 150-lb. cyls., dlvd. lb. .33 - —
Sulfur monochloride 55-gal. non-ret. dms., c.l., frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05¼- —
tanks, same basis lb. .04 - —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton.18.60 - —
Sulfuric acid, 66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton.22.35 - —
96%, tanks, works ton.23.50 - —
99-100% tanks, works ton.23.95 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
5-pt. bots. extra, cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots. extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ton.29.00 - —
65%, tanks, works ton.39.50 - —
Sumac leaves, 28% tannin, bgs., ex dock ton.205.00 Nom.
28% tannin, grd., bgs., ex dock, ton.200.00 Nom.
Superphosphate, run-of-pile, under 22% a.p.a., pulv., bulk., c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla. unit-ton. .96 - —
Sweet birch oil, USP, northern, cns. lb. 4.00 - 9.50
USP, southern, cns. lb. 2.10 - 3.05

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2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T Isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, New York, grd., bgs., c.l., works ton.28.00 - —
bgs., l.c.l., works ton.31.00 -36.00
Dom., fibrous, New York, 99.5%, 325 mesh, bgs., c.l., works, ton. 31.00 - —
bgs., l.c.l., works ton.34.00 - —
99.95% micronized, bgs., works, ton.38.00 - —
ord., Calif., grad., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
Tall oil, crude, dms., c.l., works lb. .04¼- .04½
tanks, works lb. .02¾- .03
Dist., dms., c.l., works lb. .07¾- —
dms., l.c.l., works lb. .08 - .08½
tanks, works lb. .06 - .06½
Refd., dms., c.l., works lb. .06¾- —
dms., l.c.l., works lb. .07 - .07½
tanks, works lb. .05½- .06
Tall oil acids, dms., c.l., works lb. .10½- .12
dms., l.c.l. lb. .11 - .12½
tanks, works lb. .08½- .10
Tall pitch, dms., c.l., works ton.50.00 -70.00
tanks, works ton.40.00 - —
Tallow, edible, tanks, dlvd. lb. .10¾- —
inedible, fancy, bleachable, tanks, dvld lb. .08¼- —
fancy, guaranteed, dms., f.a.s. lb. .09¼- .09¾
No. 1, tanks, dlvd. lb. .07½- —
prime, tanks, dlvd. lb. .07¾- —
special tanks, dlvd. lb. .07¾- —
sulfonated, 25%, bbls., l.c.l. lb. .08¾- .09¼
50%, bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .14 - .16½
tanks lb. .11½- —
Hydrogenated, dms. lb. .16 - .18¼
Tallow oil, acidless, dms., c.l. lb. .14½- —
dms., l.c.l. lb. .15½- .17
Tangerine oil, Florida, dms. lb. 2.95 - 3.50
Tankage, animal, feeding, 9-11% ammonia, New York, bulk, unit-ton. 7.00 - —
Animal, feeding, 9-11% ammonia, Chicago, bulk unit-ton. 8.00 - —
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.03 - —
bbls., smaller lots lb. 2.06 - 2.10
Powd., bbls., 1,000-lb. lots lb. 1.95 - —
bbls., smaller lots lb. 1.96 - 2.01
Tech., dms. lb. 1.05 - —
Tansy oil, dms. lb. 7.50 - 9.50
Tapioca flour, Brazilian, bgs., ex whse lb. .10½- .11½
Siamese, first quality, same basis, lb. .07 - .07½
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½- —
dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis gal. .62 - —
tanks, same basis gal. .50 - —
50-53%, dms., c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .63 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, dom., NF, 230 or 250-lb. dms., c.l. lb. .49 - —
230 or 250-lb. dms., 10,000-lb. lots, 1 shipt lb. .49½- —
230 or 250-lb. dms., smaller lots lb. .50 - —
100-lb. dms. lb. .51 - —
Imp., NF, bgs., dms., kgs. lb. .40 - .44
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms. lb. .70 - —
Terpineol, extra, dms. lb. .41 - .70
Prime, dms. lb. .30 - .45
Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms. lb. .53 - .56
Terpinyl propionate, dms. lb. 1.75 - 3.00
Terra alba (see Gypsum).
Testosterone, USP, bots. gram. No prices.
Testosterone proprionate, USP, gram. No prices.
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E. lb. .60 - —
dms., l.c.l., dlvd. E. lb. .61 - —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E. lb. .53½- —
dms., l.c.l., dlvd. E. lb. .54½- —
tanks, dlvd. E. lb. .51 - —

MONTROSE
CHEMICAL COMPANY

104-112 LISTER AVENUE
NEWARK, NEW JERSEY

T.C.P.—Tricresyl Phosphate

Mono Cresyl Diphenyl Phosphate

D.D.T.—Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28%—40%

D.D.V.P.—Dimethyl Dichloro Vinyl Phosphate
(Minimum 95% Purity)

D.E.T.—Diethyl Toluamide
(Minimum 95% Purity)

EXCLUSIVE SALES AGENTS

R. W. GREEFF & CO., INC.
10 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.
1721 TRIBUNE TOWER, CHICAGO, ILLINOIS

Tetrahydrofuran, dms., c.l., t.l., works..lb. .36½- —
dms., l.c.l., or l.t.l., works ....lb. .37 - —
tanks, works .....lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .34½- —
dms., l.c.l., l.t.l., Memphis, Tenn. lb. .35½- —
dms., c.l., t.l., Newark, N. J. ..lb. .36½- —
dms., l.c.l., l.t.l., Newark, N. J. lb. .37½- —
tanks, dlvd. E. of Denver .....lb. .34 - —
tanks, dlvd. W. of Denver .....lb. .35 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd. .....lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib. dms. ....lb. 4.50 - —
Theobromine and sodium acetate, USP, fib. dms..lb. 4.75 - —
Theobromine sodio-salicylate, NF, fib. dms..lb. 3.90 - —
Theophyline, anhyd. or USP, 100-lb. dms..lb. 3.65 - —
Thiamin hydrochloride, USP, reg., fib. dms..kilo.40.00 - —
USP, ampule grade, fib. dms.kilo.42.00 - —
Thiamin mononitrate, USP, fib. dms..kilo.40.00 - —
Thiocarbanilide, dms., ton lots..lb. .72 - —
dms., less ton lots .....lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works..lb. 5.29 - —
Tungstated, PTMA, kgs., works. lb. 6.20 - —
Thioglycolic acid, refd., cbys., 100% basis..lb. 1.35 - 1.55
Thiosalicylic acid, purif., dms., 1,000-lb., lots, works..lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis .....lb. .32 - —
bgs., less than ton lots, same basis. lb. .33 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works..lb. 3.50 - —
dl-Threonine, bots., 1-kilo lots. kilo.275.00 - —
Thyme leaves, French, bgs. .....lb. .34 - —
Spanish, bgs. .....lb. .14 - —
Thyme oil, NF, red, cns., dms..lb. 2.00 - 2.25
white, cns. .....lb. 2.20 - 2.60
Tech., white, cns. .....lb. .40 - 1.85
Thymol, fib. dms. .....lb. 2.60 - 3.00
Thymol iodide, NF, dms. .....lb. 7.30 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits).....lb. .93⅛- —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd..lb. .25½- —
bgs., l.c.l., dlvd.....lb. .26½- —
reg., bgs., c.l., dlvd.....lb. .25½- —
bgs., l.c.l., dlvd..... lb. .26½- —
Titanium dioxide, anatase, metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla...ton.180.00 - —
bgs., 5-ton lots, Niagara, Falls, N.Y..ton.205.00 - —
bgs., ton lots, same basis. ton.215.00 - —

Milled metallurgical titanium dioxide $7.50 per ton higher.

Titanium dioxide, rutile, non-chalking, bgs., c.l., dlvd. E.lb. .27½- —
bgs., l.c.l., dlvd. E.....lb. .28½- —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd. lb. .09¾- —
bgs., l.c.l., works.....lb. .09⅞- —
50% Ti O_2, high-tinting, dms., c.l. lb. .14⅜- —
dms., l.c.l. .....lb. .14⅞- —
Titanium hydride, powd., dms., works..lb. 8.10 - 9.00
Titanium tetrachloride, tech., dms., c.l., works..lb. .26 - —
dms., l.c.l., works .....lb. .27½ - .29
tanks, works .....lb. .20 - —
Tobias acid, bbls., l.c.l.....lb. .81 - —
d-a-Tocopherols, mixed, NF, conc., pure basis, bots..kilo.91.00 - —
di-a-Tocopherol, bots. .....kilo.134.20 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots. kilo.166.00 - —
d-a-Tocopheryl acid succinate, cryst., bots. kilo.148.00 - —
dl-a-Tocopheryl acetate, bots....kilo.122.00 - —
25% dry, powd., bots.....kilo.30.50 -32.00
33% dry, powd., bots.....kilo.40.65 -42.50
o-Tolidine base, dry, kgs., 100% basis..lb. 1.50 - —
Paste, kgs., 100% basis.....lb. 1.45 - —

Toluol

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride, paste, kgs., 100% basis..lb. 1.45 - —
Tolu balsam, cns. .....lb. 3.10 - 4.35
Toluene coaltar indust., or nitration, tanks, dlvd. E. of Rockies ...gal. .25 - —
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies .gal. .25 - .32
p-Toluenesulfonamide, powd., dms., works. lb. .70 - —
p-Toluenesolfonic acid, dms., c.l., t.l., works..lb. .17 - —
dms., l.c.l., works.....lb. .18 - —
p-Toluenesulfonic acid monohydrate, dms., c.l. or t.l...lb. .90 - —
dms., 125 lbs. to t.l.....lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld..lb. .79 - —
dms., l.c.l., same basis.....lb. .80 - —
tanks, same basis.....lb. .78 - —
o-Toluidine, dms., c.l., works, frt. alld..lb. .27 - —
dms., l.c.l., same basis .....lb. .28 - —
tanks, same basis .....lb. .25 - —
p-Toluidine, flake, dms., frt. alld lb. .54 - —
Solid, dms., frt. alld. .....lb. .50 - —
p-Toluidine-m-sulfonic acid, bbls., works..lb. .92 - 1.04
Toluidine, red toner, deep shades, kgs., works..lb. 1.70 - —
Light shades, kgs., works.....lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld..lb. 1.10 - —

Tonka beans, Angostura, cks. ..lb. No prices.
Brazilian, Surinam, cs. .....lb. 1.35 - —
Totaquine 100-oz. lots, cns. .....oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb. .22 - —
dms., l.c.l., l.t.l., works .....lb. .26 - —

Tragacanth gum, No. 1, ribbons, cs..lb. 3.50 - 4.50
No. 2, cs. .....lb. 3.40 - —
No. 3, cs. .....lb. 3.00 - 3.10
USP, powd., bbls. .....lb. 1.25 - 1.38
Triacetin, dms., c.l., dlvd. E. of Rockies..lb. .39 - —
dms., l.c.l., same basis. .....lb. .40 - —
tanks, same basis. .....lb. .37 - —
Triallylamine, dms., c.l., dlvd. ..lb. .985 - —
dms., l.c.l., dlvd. .....lb. .995 - —
tanks, dlvd. .....lb. .98 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver, lb. .42½- —
non-ret. dms., l.c.l., frt. alld, E. of Denver..lb. .43½- —
tanks, frt. alld. E. of Denver..lb. .40 - —
Tributyl phosphate, dms., c.l., works. lb. .52½- —
dms., l.c.l., same basis. .....lb. .53½- —
tanks, same basis. .....lb. .50 - —
Tributylamine, dms., c.l., works..lb. .67½- —
dms., l.c.l., same basis. .....lb. .68½- —
tanks, same basis. .....lb. .65 - —
Trichloroacetic acid, bots. ..... lb. 2.00 - 2.50
Trichlorobenzene, dms., c.l., frt. alld. E..lb. .15 - —
dms., l.c.l., frt. alld. E. .....lb. .16 - —
tanks, frt. alld. E. .....lb. .13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13⅜- —
dms., l.c.l., dlvd. .....lb. .16⅝- —
tanks, dlvd. .....lb. .12⅜- —
1,1,2-Trichloroethane, dms., c.l., works..lb. .13½- —
dms., l.c.l., dlvd. E. .....lb. .14¼- —
tanks, works .....lb. .11½- —
Trichloroethylene, dms., c.l., or t.l., works, frt. equald..lb. .13 - —
dms., l.c.l., frt. alld. .....lb. .15 - .16¾
tanks, works, frt. equald. .....lb. .12 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd..lb. .35 - —
dms., l.c.l., dlvd. .....lb. .36 - —
tanks, dlvd. .....lb. .32½- —
Petroleum, dms., c.l., dlvd. ...lb. .34½- —
dms., l.c.l., dlvd. .....lb. .35½- —
tanks, dlvd. .....lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., dlvd..lb. .26½- —
dms., l.c.l., dlvd. .....lb. .27½- —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½- —
dms., l.c.l., same basis .....lb. .25½- —
tanks, same basis .....lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld. lb. .24 - —
dms., l.t.l., frt. alld. .....lb. .25 - —
tanks, frt. alld. .....lb. .23 - —
Triethylamine, dms., c.l., works, dlvd. E lb. .50 - —
dms., l.c.l., same basis.....lb. .51 - —
tanks, same basis .....lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks, frt. alld. E. of Denver lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. .....lb. .41½- —
tanks, dlvd. .....lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E..lb. .21 - —
dms., l.c.l., dlvd. E. .....lb. .22 - —
tanks, same basis .....lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E..lb. .51½- —
dms., l.c.l., dlvd. E. .....lb. .52½- —
tanks, dlvd. E. .....lb. .49 - —
Tri-isopropanolamine, dms., c.l., dlvd. E..lb. .23¼- —
dms., l.c.l., dlvd. E. .....lb. .24¼- —
tanks, dlvd. E. .....lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 - .305
tanks, same basis .....lb. .26 - —
25-40% soln., dms., c.l., works, frt. equald, 100% basis lb. .35 - —
dms., l.c.l., works, frt. equald., 100% basis lb. .35½- —
tanks, works, frt. equald, 100% basis lb. .26 - —
Trioxane, pure, dms., c.l., t.l., works. lb. .50 - —
dms., l.c.l., works .....lb. .51½- —
Tripentaerythritol, c.l., t.l., dlvd. E. lb. .38 - —
bgs., l.c.l., l.t.l., dlvd. E. .....lb. .39 - —
Triphenyl phosphate, bbls., c.l., frt equald lb. .41½- —
bbls., l.c.l., frt. equald .....lb. .43½- —
Triphenylguanidine, bbls., works.lb. .90 - —
tanks, same basis.....lb. .18½- —

HOW CAN YOU USE THE RARE EARTHS?

Find new uses through process and product development research

a report by LINDSAY

If you have been curious about the rare earths and have wondered if they might be useful tools in your own production processes, you may find it rewarding to talk with us.

We can give you a wealth of technical data about the high purity rare earth and yttrium oxides. And we may be able to make suggestions which will be helpful to you in exploring potential applications of the rare earths.

The amazing versatility and unique characteristics of the rare earths are sure to challenge the imagination of your research people. It is quite likely that through research you may find, as so many others have, profitable applications for these materials. The wide variety of uses for the rare earths is indicated by these few examples.

Neodymium . . . in ceramic dielectric applications.

Cerium . . . a stabilizer against radiation browning in glass.

Dysprosium . . . in neutron measuring devices.

Gadolinium and *lanthanum* . . . in maser microwave amplifiers.

Ytterbium, samarium, europium, gadolinium and *lanthanum* . . . as phosphor activators.

Yttrium oxide . . . in an yttrium iron garnet, a ferrimagnetic material, for use in microwave equipment.

Erbium, europium, samarium, dysprosium and *gadolinium* . . . in control rod devices in nuclear reactors.

Most of the rare earth and yttrium oxides, in purities up to 99.99%, are available for prompt deliveries in quantities of an ounce to hundreds of pounds. You can be sure of materials needed for production purposes.

Current prices make high purity rare earths attractive and economically sound for a wide variety of chemical and industrial uses. Lower purity rare earths are more attractive cost-wise and may be suitable for your purposes.

TYPICAL MAXIMUM IMPURITIES IN LINDSAY PURIFIED RARE EARTH AND YTTRIUM OXIDES

ATOMIC NO.	OXIDE	CODE	PURITY	% RARE EARTH MAXIMUM IMPURITIES AS OXIDES
57	La_2O_3. LANTHANUM OXIDE	528 529	99.99 99.997	0.01 Pr, 0.001 Ce. 0.0025 Pr, 0.0005 others
58	CeO_2. CERIC OXIDE	215 216	99.8 99.9	0.2 (largely La + Pr + Nd). 0.1 (largely La + Pr + Nd).
59	Pr_6O_{11}. PRASEODYMIUM OXIDE	726 729.9	99 99.9	1 La + Nd + smaller amounts of Ce and Sm. 0.1 Ce + Nd.
60	Nd_2O_3. NEODYMIUM OXIDE	628 629 629.9	95 99 99.9	1-4 Pr, 1-4 Sm, 0.5-1 others. 0.1-0.4 Pr + 0.1-0.4 Sm + 0.5 others. 0.1 (largely Pr + Sm).
62	Sm_2O_3. SAMARIUM OXIDE	822 823	99 99.9	0.2-0.7 Gd, 0.2-0.6 Eu, and smaller amounts of others. 0.1 (largely Nd + Gd + Eu).
63	Eu_2O_3. EUROPIUM OXIDE	1012 1011	98-99 99.8	1-2 Sm + smaller amounts of Nd + Gd + others. 0.2 (largely Sm + Gd + Nd).
64	Gd_2O_3. GADOLINIUM OXIDE	928.9 929.9	99 99.9	1 Sm + Eu + trace Tb. 0.1 Sm + Eu + trace Tb.
65	Tb_4O_7. TERBIUM OXIDE	1803 1805	99 99.9	1 Gd + Dy + Y. 0.1 Gd + Dy + Y.
66	Dy_2O_3. DYSPROSIUM OXIDE	1703 1705	99 99.9	1 (largely Ho + Y + Tb + small amounts of others). 0.1 Ho + Y + traces of others.
67	Ho_2O_3. HOLMIUM OXIDE	1603 1605	99 99.9	1 (largely Er + Dy + small amounts of others). 0.1 Er + Dy + traces of others.
68	Er_2O_3. ERBIUM OXIDE	1303 1305	99 99.9	1 Ho + Dy + traces Yb and Y. 0.1 Ho + Tm.
69	Tm_2O_3. THULIUM OXIDE	1405 1403	99.9 99	0.1 Er + Yb + trace Lu. 1 Er + Yb + trace Lu
70	Yb_2O_3. YTTERBIUM OXIDE	1201 1202	99 99.9	1 Er + Tm + trace Lu. 0.1 Tm + trace Lu + Er.
71	Lu_2O_3. LUTETIUM OXIDE	1503 1505	99 99.9	1 Yb + Tm + traces of others. 0.1 Yb + Tm + traces of others.
39	Y_2O_3. YTTRIUM OXIDE	1112 1115 1116	99 99.9 99.9+	1 Dy + Gd + traces Tb and others. 0.1 Dy + Gd + traces Tb Approx. 0.05 Dy + Gd.

For detailed information and prices, write for our bulletin "Purified Rare Earth and Yttrium Oxides"

PLEASE ADDRESS INQUIRIES TO

TRONA LINDSAY CHEMICAL DIVISION

American Potash & Chemical Corporation

250 ANN STREET • WEST CHICAGO, ILLINOIS

Tripropylene Glycol—White Pine Bark

Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .21 - —
dms., l.c.l., l.t.l., frt. alld. E lb. .22 - —
Tripropylene glycol, tankcars and compartmented tankcars, frt. alld. E lb. .18½- —
tankwagons and compartmented tankwagons, 1,000 gals., min. frt. alld. E lb. .19 - —
Tripropylene glycol prices 1c. per lb. higher in West.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib., dms., works. lb.55.00 - —
Tung oil, dms., c.l., New York lb. .22½- —
dms., l.c.l., New York lb. .22¾- .23¼
tanks, New York lb. .21 - —
tanks, domestic mills lb. .21 Nom.
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 3.73 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.15 Nom.
dms., smaller lots, works lb. 2.30 Nom.
Turkey red, bbls., works lb. .62 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 - .50
Tyrothricin, USP, bots. gram, .55 - .58
Tuscan red, bbls., frt. equald. lb. .26 - .32

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .35 - .39½
Ultramarine blue, jobbing types, bbls., same basis lb. .19 - —
Regular types, dry bbls., same basis lb. .22½- .35
Ultramarine blue prices 1c. higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs., l.c.l., works lb. .07¾- .08
Turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .08¼- —
Raw, American, bgs., works lb. .07¾- .08¼
Turkey-type, bgs., works lb. .08½- .08¾
Undecylenic acid, dms. lb. 1.45 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E ton.125.00 - —
bgs., l.c.l., dlvd. E. ex whse. ton.145.00 - —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E ton.110.00 - —
Urea-ammonia liquor, A and B grades, N basis, tanks, Belle, W. Va. ton.126.00 - —
C grade, tanks, same basis ton.124.50 - —
37 grade, tanks, same basis ton.153.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb. .65 - —
dms., l.t.l., same basis lb. .70 - —
Uva-ursi leaves, bls. lb. .17 - .19

V

Valerian root, Belgian, bgs. lb. .35 - —
Indian, bgs. lb. .29 - —
dl-Valine, dms., works lb.21.00 -27.50
Valonia beards, 40-42% tannin, bgs., ex dock ton.88.00 -90.00
Valonia cups, 28-30% tannin, bgs., ex dock ton.66.00 -67.00
Valonia extract, powd., 63% tannin, bgs., ex dock lb. .11 - —
Vanadium pentoxide, tech., dms., works lb. 1.28 - 1.33
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins lb.10.40 -10.80
Mexican, cuts, tins lb.10.40 -10.80
whole, tins lb.10.50 -10.70
Tahiti, cs. lb. 8.20 - —
Vanillin, ex lignin, 100-lb. fib. dms., 1,000-lb. lots or more lb. 3.00 - —
100-lb fib. dms., 500-lb. lots lb. 3.10 - —
100-lb fib. dms., 100-lb. lots lb. 3.25 - —
Venetian red, jobbing, bgs., works, lb. .0475- —
20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns. lb.11.25 -15.50
Haitian, cns. lb.10.50 -12.50
Java, cns. lb.11.75 -12.25
Victoria blue toner, molybdated, PMA, 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .20 - —
55-gal. dms., l.c.l., dlvd. lb. .21 - —
tanks, dlvd. lb. .17½- —
tanktrucks less than 4,000 gal., dlvd lb. .18 - —
Zone 2, 55-gal. dms., c.l., dlvd lb. .21 - —
55-gal. dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. lb. .18½- —
tanktrucks, less than 4,000 gals., dlvd lb. .19 - —
Zone 1 is all continental U. S. except Zone 2. Zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works lb. .11 - .125
Vinyl ether, tech., dms., c.l., works. lb. .26 - —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25 - —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals bot. 1.56 - —
Vinyl ethyl ether, tech., dms., c.l., works lb. .29¼- —
dms., l.c.l., works lb. .30 - —
tanks, works lb. .27¼- —
Vinyl methyl ether, cyls., works lb. .30 - —
Cylinders are sold outright, or if shipped against deposit, a free period of sixty days is allowed; and if empties are returned prepaid and in good condition within that period full refund is made.
Vinyl propionate monomer, dms., c.l., dlvd lb. .49½- —
dms., l.c.l., same basis lb. .50½- —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.30 - —
1 to 9 dms., works lb. 1.45 - —
tanks, works lb. 1.25 - —
Vinyltoluene, dms., c.l., f.o.b., works. lb. .16 - —
dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .13½- —
Viosterol, in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units, 1,000,000 units. .02½- —
Virginia type red, bbls., works lb. 1.40 - —
Vitamin A acetate, syn., cryst., beads, 500,000 A units per gram gram. .07¼- —
dry, 500,000 units per gram, kilo lots kilo.67.50 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $2.50 per kilo higher in all potencies.
Vitamin A, liq. in oil, 1,000,000 A units per gram, 1,000,000 units .10 - —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .10 - —
Liq. in oil, 1,000,000 A units per gram 1,000,000 units. 10 - —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., 1-50 grams, vials, tins gram.190.00 - —
Oral grade solids, in containers of 1 and 10 grams of B_{12} activity. gram.160.00 - —
0.1 percent trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.218.00 - —
Vitamin C (see Ascorbic acid).
Vitamin D (see Codliver and Fish-liver oils, Calciferol and Viosterol).
Vitamin D_2, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram, less than kilo lots kilo45.00 - —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin G (see Riboflavin).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Vitamin K_1, 25 gram bots. gram. 4.50 - —
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

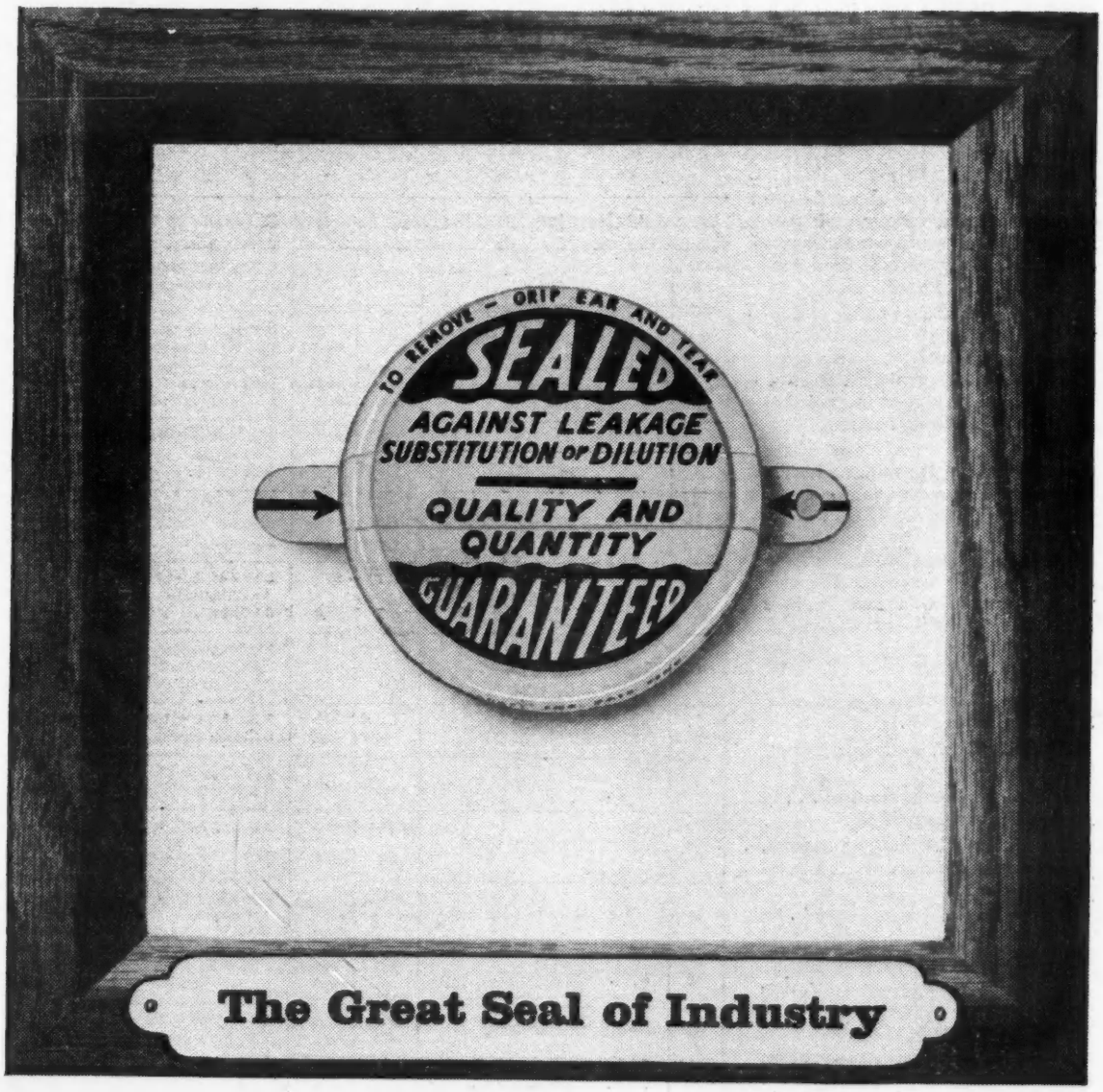
W

Wahoo root, bark, bls. lb. 2.10 - —
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
dms., 25-49-lb. lots, New York or Chicago lb. 2.05 - —
Warfarin, 0.5%, cns., 5-24-lb. lots, New York or Chicago lb. 2.15 - —
Watchung-type reds, bbls. lb. 1.95 - —
Wattle bark, fair average, African, bls., ex dock ton.68.00 - —
Merchantable, bls., ex dock ton.64.00 - —
Wattle extract, liq., 35% tannin, bbls lb. .08¼- .08⅛
Solid, East Africa, 60% tannin, bgs., ex dock lb. .08275- —
South Africa, 60% tannin, bgs., ex dock lb. .0840- —

Waxes

Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. gal.12.25 - —
Wheat starch (see Starch, wheat).
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. lb. .18 - .19



Tri-Sure®

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CHICAGO, ILL. · LINDEN, N. J. · NILES, OHIO

Tri-Sure Products Limited, St. Catharines, Ontario, Canada
Tri-Sure S/A Indústria e Comércio, Sao Bernardo Do Campo, Estado de Sao Paulo, Brazil
American Flange & Manufacturing Co. Inc., Villawood, N. S. W., Australia
Compañia Mexicana Tri-Sure S. A., Naucalpan, E. de Mexico, Mexico
B. Van Leer N. V., Stadhouderskade 6, Amsterdam, Holland
Van Leer Industries, Ltd., Seymour House, 17 Waterloo Place, Pall Mall S. W. I, London, England

White precipitate, USP, powd., dms., lb. 6.55 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls. lb. .18 - —
Thin, rossed, bls. lb. .21 - —
Wintergreen oil, USP, nat., northern, cns. lb. 6.35 -17.50
USP, nat., southern, cns. lb. 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls. lb. .16 - .17
Witch hazel leaves, bls. lb. .22 - —
Wollastonite, fine, bgs., c.l., works, ton 39.50 - —
bgs., l.c.l., ex whse. ton 56.00 - —
Medium, bgs., c.l., works ton 27.00 - —
bgs., l.c.l., ex whse. ton 44.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat, crude (see Degras).
Woolfat, USP (see Lanolin).
Wormseed, Levant, bgs. lb. 4.25 - 4.50
Wormseed oil (see Chenopodium oil, NF).
Wormwood oil, cns. lb. 4.90 - 5.85

X

Xylene, coaltar, indust., tanks, works:
Bethlehem, Pa. gal. .29 - —
Birmingham dist. gal. .29 - —
Chicago dist. gal. .29 - —
Cleveland dist. gal. .29 - —
Geneva, Utah gal. .29 - —
Johnstown, Pa. gal. .29 - —
Lackawanna, N. Y. gal. .29½ - —
Lone Star, Tex. gal. .27 - —
Lorain, Ohio gal. .29 - —
Middletown, Ohio gal. .30 - —
Minnequa, Col. gal. .29 - —
Philadelphia dist. gal. .29 - —
Pittsburgh dist. gal. .29 - —
Sparrows Point, Md. gal. .29 - —
Terre Haute, Ind. gal. .29 - —
Youngstown, Ohio gal. .29 - —
Xylene, petroleum, indust., tanks, f.o.b. works:
Bayonne, N. J. gal. .29 - —
Baytown, Tex. gal. .27 - —
Charleston, S. C. gal. .29 - —
Chicago, Ill. gal. .30 - —
Houston, Tex. gal. .27 - —
Philadelphia, Pa. gal. .29 - —
Providence, R. I. gal. .30 - —
Sewell's Point, Va. gal. .28 - —
Wood River, Ill. gal. .29 - —
Xylenol, cryst., 45°-47° C., m.p., dms., l.c.l., works lb. .23 - —
56°-58° C., m.p., dms., l.c.l., works, frt. equald lb. .33 - —
60°-62° C., m.p., dms., l.c.l., same basis lb. .40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 - —
dms., l.c.l., same basis gal. 1.30 - —
tanks, same basis gal. 1.05 - —
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .39 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .38 - —

Xylol

Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. lb. 2.15 - 3.05
Yeast, brewers, debittered, USP, Saccharomyces, dlvd. lb. .27 - —
Dry, USP, 50 Int'l B units per gram, 100-lb. dms. lb. .47 - —
90 Int'l B units per gram, 100-lb. dms. lb. .52 - —
200 Int'l B units per gram, 100-lb. dms. lb. .56 - —
300 Int'l B units per gram, 100-lb. dms. lb. .60 - —
Torula, USP, dlvd. lb. .18 - —
Yerba santa leaves, bls. lb. .40 - .42
Ylang-ylang oil, Bourbon, bots. lb. 19.00 -25.00

Yellow Pigments

Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Ylang-ylang oil, Bourbon, extra, bots. lb. 28.00 -40.00
Madagascar, bots. lb. No Stocks.
Yohimbine hydrochloride, bots., tins, oz. 4.75 - 5.25

Z

Zein, bgs., 36,000-lb. lots or more, f.o.b. plant lb. .28 - —
bgs., 500-lb. lots or more, dlvd. lb. .343 - —
bgs., smaller lots, dlvd. lb. .373 - —
Zinc acetate, NF, VIII, dms. lb. .53 - —
Tech., dms., l.t.l., works lb. .29¾ - —
Zinc borate, bgs., 1,000 lbs. or more, works lb. .23 - —
bgs., less than 1,000 lbs., same basis lb. .25 - —
Zinc chloride, NF, gran., dms. lb. .42 - —
Precip., powd., dms. lb. .26 - —
Soln., 50%, dms., c.l., works, 100 lbs. 5.80 - —
dms., l.c.l., works 100 lbs. 6.40 - —
tanks, works 100 lbs. 5.15 - —
Zinc chloride, tech., fused, dms., c.l., works 100 lbs. 10.70 - —
dms., l.c.l., works 100 lbs. 11.20 - —
gran., fib dms., c.l., works, 100 lbs. 11.45 - —
fib. dms., l.c.l., works 100 lbs. 11.95 - —
Zinc chromate, bbls., dlvd. lb. .29 - —
Basic, bbls., dlvd. lb. .34 - —
Zinc cyanide, dms., 1,000-lb. lots or more, works lb. .53 - —
dms., smaller lots, works lb. .57 - —
Zinc dust, coml., bbls., c.l., works, lb. .1360- —
Pigment, bbls., c.l., works lb. .14 - —
bbls., l.c.l., works lb. .15 - —
Zinc fluoride, bbls., works lb. .49 - .50
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½- —
dms., l.c.l., frt. alld. lb. .23½- —
Zinc metal, prime western, slabs, E. St. Louis lb. .1050- —
Prime western, slabs, New York, lb. .11 - —
Zinc naphthenate, liq., 8% Zn., dms., frt. alld lb. .27 - —
10% Zn., dms., frt. alld lb. .33 - —
Zinc nitrate, tech., cryst., bbls., works lb. .20 - —
Zinc oxide pigment, American process, lead-free, bgs., c.l., frt. alld lb. .14½- —
bgs., l.c.l., same basis lb. .15½- —
Zinc oxide pigment, American process, leaded, 35%, bgs., c.l., mills, frt. alld lb. .15½- —
bgs., l.c.l., same basis lb. .16½- —
50% bgs., c.l., same basis lb. .15⅝- —
bgs., l.c.l., same basis lb. .16⅝- —
Zinc oxide pigment, French process, green seal, bgs., c.l., mills, frt. alld. lb. .16¼- —
bgs., l.c.l., same basis lb. .17¼- —
red seal, bgs., c.l., same basis, lb. .15¼- —
bgs., l.c.l., same basis lb. .16¼- —
Zinc oxide pigment, French process, white seal, bgs., c.l., same basis lb. .16¾- —
bgs., l.c.l., same basis lb. .17¾- —
USP, ctns., c.l., frt. alld lb. .17¼- —
ctns., l.c.l., same basis lb. .18¼- —
Zinc oxide, Pac. Coast prices 1c. higher.
Zinc phenolsulfonate, NF, gran., dms lb. .44 - .45
NF, powd., dms. lb. .47 - .48
Zinc resinate, precip., 7.2-7.6% Zn., dms., frt. alld lb. .36¼- —
Zinc silicofluoride, dms., works lb. .12½- .14
Zinc stearate, tech., USP, ctns., c.l., lb. .41 - —
Zinc sulfate, powd., monohydrate, ctns., l.c.l. lb. .42 - .46
36% Zn., bgs., c.l., dlvd. E 100 lbs. 8.75 - —
bgs., l.c.l., dlvd. E 100 lbs. 9.75 - —
USP, gran., dms. lb. .26 - —
Zinc sulfate in bbls. 40c. higher.
Zinc sulfide, pure, bgs., c.l., dlvd. lb. .2530- —
Zinc undecylenate, dms. lb. 2.00 - —
Zinc yellow (see Zinc chromate).
Zinc-ammonium chloride, bgs., c.l., works 100 lbs. 10.25 - —
bbls, c.l., works 100 lbs. 10.85 - —
bbls., l.c.l., works 100 lbs. 11.35 - —
Zinc-formaldehyde sulfoxylate, basic, dms., c.l. lb. .25½- —
dms., l.c.l. lb. .26 - —
Zircon (G), gran., bgs., c.l., works, lb. .03⅛- —
bgs., 5 tons to c.l., works lb. .03⅜- —
bgs., 1 ton to 9,999-lb. lots, works lb. .04 - —
bgs., smaller lots, works lb. .08½- —
Milled, bgs., c.l., works lb. .04½- —
bgs., 5 tons to c.l., works lb. .04⅝- —
bgs., 1 ton to 9,999-lb. lots, works lb. .04¾- —
bgs., 500-1,999-lb. lots, works lb. .07½- —
Zircon (G) in barrels 1c. higher.
Zirconium acetate, 13% soln., ZrO_2, c.l., 30,000 lbs. minimum, works lb. .23 - —
Zirconium hydride, powd., dms., works lb. 7.25 - 9.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works lb. 1.50 - —
Electric-fused, lump, bgs., 500 to 1,999-lb. lots, works lb. .45½- —
bgs., smaller lots, works lb. .48 - —
milled, bgs., c.l., works lb. .59 - —
bgs., 5-ton lots, works lb. .59½- —
bgs., 1-ton to 9,999-lb. lots, works lb. .60 - —
bgs., 500 to 1,999-lb. lots., works lb. .60½- —
bgs., smaller lots, works lb. .63 - —
Glass polishing grade, 94-97% ZrO_2, bgs., works lb. .55 - .65
Opacifier grade, 85-90% ZrO_2, bgs., lb. .27 - .50
Stabilized oxide, 91% ZrO_2, milled, bgs lb. .62 - .85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works lb. .35½- —

BO-DEE MINERAL STABLE D2

WISCONSIN ALUMNI RESEARCH FOUNDATION
Approved for VITAMIN D upon periodic tests

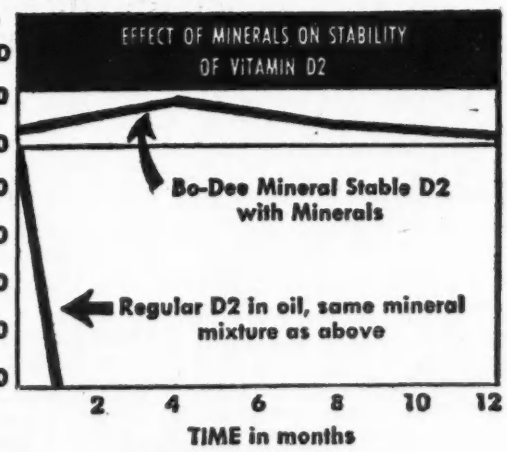
Now APPROVED

For 12 months stability in the presence of these listed minerals by

WISCONSIN ALUMNI RESEARCH FOUNDATION

Note: MINERAL STABLE D2 fully present at the end of 12 months. Ordinary D2 practically gone in 30 days.

Ground Limestone	41.23%	Ferrous sulfate	0.50%
Steamed bonemeal	15.00	Copper sulfate	0.15
Tricalcium phosphate	13.00	Manganese sulfate	0.10
Magnesium sulfate	10.00	Cobalt sulfate	0.02
Iodized sodium chloride	20.00%		



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Scientists Bar Biases

"The right of the scientists of any country or territory to adhere to or to associate with international scientific activities without regard to race, religion, or political philosophy" was affirmed by the International Council of Scientific Unions in a resolution adopted at its recent eighth annual assembly. The primary purpose of that action had to do with political differences. The resolution was the outcome of a request by its president that the council "affirm its non-political nature to avoid dangers of serious political entanglements in the future and to meet the special political problems of the world today." It specifically "recognized and welcomed to membership all bona fide scientific groups regardless of the political complexion or nature of the government controlling their country."

That is a notable step in the direction of a highly desirable and potentially beneficial condition of world integration. Its results will be watched and appraised with serious attention by all who believe that the solution of all world problems can best be approached by way of human relations. It is highly to be desired that the ICSU lead be followed in all areas of social science, as well as physical.

To assure the effectiveness of its action in the attainment of its purpose, the international council's resolution provides that its meetings or those of any of its subordinate groups should be held only in countries which "permit participation of all ICSU members and allow free and prompt dissemination of information related to such meetings." If, therefore, a meeting is to be held in the United States, it will be necessary under the present immigration act for members from communist countries to get the special official permission to enter this country, which that act requires. There is no reason to believe that such permission would not readily be granted under present conditions. But, conditions in all areas of international relations are not permanent these days. It is to be expected that there will be opposition to permitting communistic ICSU members—and perhaps others—to come into this country by those who are mainly, if not wholly, concerned with the possibilities attending the commonly attributed devotion of those people to the propagating of their political ideology. The international gatherings of scientists — in Geneva for example—have been quite free from propagandistic manifestations. But, once again, conditions are very changeable.

Economic World War Urged

Addressing a luncheon of the British Commonwealth Chamber of Commerce of the USA a fortnight ago, one of New York's representatives in the United States Senate made a strong proposal that the western industrial nations, led by this country, launch a "major offensive" in world economic competition with the communist bloc in 1959. He pointed out that the communists had handed out almost two billion dollars in "economic aid" since 1952 and had increased their trade agreements with other countries from 115 to 243. One "combative" step which he urged in that connection was the more than doubling of the development loan fund to a billion dollars. He also called for an increasing of US foreign trade from thirty-four to fifty billion dollars annually. He favored "adjustment assistance" (?) as a substitute for quotas and other burdensome restrictions on imports for the protection or preservation of domestic industries.

All of which sounds very good. But, what would be the cost? And who would have to pay it?

Commercial exports from the United States in the first half of the current year had a total value almost 20 percent less than that for the corresponding period in 1957. The value of imports was off almost 3 percent. The imports total was about 24 percent less than the exports. That is where there is really a need for "adjustment assistance"—not, however, by government.

It is a simple matter for politicians to talk about going all out in combat with the communists for world trade. It is especially simple for them to suggest that the movement be led by the United States. But, as a business, such an undertaking would bear a most heavy handicap because of the difference in costs of production between the communistic and the capitalistic methods of industrial operation.

There was a much closer approach to practicability in some of the New York senator's other suggestions. Those included introduction of additional international development agencies, increased private investment in less-developed areas through tax concessions, and—what is especially deserving of serious consideration by private enterprise—the creation of a privately financed world development corporation.

Dealings with India

Early in September, the Department of State gave assurance to the visiting finance minister of India that this country would contribute a hundred million dollars in development loan funds to ease India's foreign exchange position. That was a part of an international program to help India meet financial requirements, to develop transportation, and to push ahead in, or at least catch up with, other matters. The World Bank was reported to be giving another hundred million; the United Kingdom, one hundred twelve million; and other western allies, an aggregate sixty-seven million. A bit less than three weeks later, India's minister for mines and oils went to Moscow to try to induce Russia to give more aid to his country toward the developing of its newly started petroleum industry. Information on how that aiding would be financed has not been available. Those who have any familiarity with Soviet dickerings can draw their own conclusion.

Now comes the Bureau of Foreign Commerce in Washington with invitations to US business concerns to furnish it with information about their interest in developing business relations with firms in India through the investment of capital, the furnishing of equipment, the providing of technical information, the licensing of patents or processes, or the purchasing of something from somebody in India.

Insofar as information is available, the official invitation has nothing to do with what US businessmen may be thinking about the "neutral" policy in politics and economics pronounced by the prime minister of India, with its criticism of capitalism as contributory to inequality and that of communism as disregardful of certain essential human needs.

The Bureau of Foreign Commerce wants the information for which it has asked for the guidance and assistance of a trade mission purposed to promote US-India business relations in the New Delhi area which it plans to visit from November 10 to January 10. US business should see that it is adequately represented in all particulars in that mission. There are good business potentialities in India—and nobody knows that better than the Russians.

Business should endeavor also to learn as early as possible what the trade mission has to say about those potentialities and to make full appropriate use of that information. The US trade missions are doing a very good and necessary job in getting interesting and instructive information for business. The one that was in Poland in May and June, this year, was an excellent example. But, what has been, or is being, done by US business to make proper and profitable use of the information which that mission collected and has reported?

Because the "neutralism" of India is as much more political than economic in the minds of its people, any visiting foreign group must be very careful about what it may say on such things as the Kashmir problem as presented a fortnight ago at the UN General Assembly by a representative of Pakistan, especially his charge that, while his country has accepted all the directives of the UN Security Council toward the solution of that problem, "all of them have been rejected by India." That disregard for the United Nations should help toward India's getting the Russian aid in its petroleum development.

Will the United States, as too often is customary, be politically apathetic when it is being economically generous? Or will it be guided by the realistic precept that they who expect to get should deserve?

Washington Talks It Over

Chemical Industry's Labor Law Attorneys Advised to Watch For Guide Lines From the NLRB in Next Few Months.

By Ralph L. Cherry
Chief, OPD Washington Bureau

Labor law attorneys in the chemical industry will do well to pay strict attention to the decisions of the National Labor Relations Board for the next several months. Some fundamental guide lines will be found in these decisions detailing just how far the board intends to extend its jurisdiction in labor-dispute cases.

The board had been forced to announce changes in its standards for determining in which cases it will exercise its jurisdiction because of a supreme court decision last spring establishing a vast no-man's land in the labor field wherein neither the courts nor any state or federal agency currently can or is exercising jurisdiction.

Congress could have corrected the situation by being more specific as to just where state or local authority ends and federal authority begins, but it chose to ignore this approach in favor of increasing appropriations to the labor board so that it could reassert its jurisdiction into some of the areas it previously had relinquished.

For example, the board now plans to take jurisdiction in cases in the non-retail field where the outflow or inflow, direct or indirect, amounts to $50,000 or more and in cases where there is a "substantial impact on national defense." Heretofore, the board stepped in only in those cases in the non-retail field where the direct outflow was $50,000 or more, direct inflow was $500,000 or more, indirect outflow was $100,000 or more and indirect inflow was $1 million or more.

In national defense cases, it acted only when the business of the company involved $100,000 in goods or services directly related to national defense, and pursuant to a government contract. In announcing these and a half-dozen other policy changes for determining jurisdiction which are of lesser importance to the chemical industry, the board specifically suggests to students of labor laws that they carefully watch its decisions in the future for in them it will attempt to spell out the various elements of the new standards.

Chemistry Industry to the Rescue

The versatility of the chemical industry in rescuing a mining operation from a problem that appeared impossible to solve again shows itself in the records of the Bureau of Mines. It involved the use of chemicals to solidify a dangerous layer of quicksand encountered during an unusual tunneling operation at an open-pit iron-ore mine in Minnesota.

A 22-foot-thick bed of fine, water-filled sand halted tunneling at the Pickands Mather Company, Tioga No. 2 mine near Grant Rapids, Minn., where an opening was being driven to house a conveyor belt for carrying ore from the bottom of the pit to the surface. Tunneling, which was proceeding from both ends, became impossible when the sand layer was reached.

When the conventional technic of grouting with cement failed, aid of the chemical industry became necessary. A chemical solidification method called the Joosten process, named after Hugo J. Joosten, the Netherlands engineer who developed it, was employed.

Solutions of sodium silicate and calcium chloride were pumped through carefully placed pipes into the hazardous sand particles together and eliminated the water problem. The tunnel then was driven 178 feet through the stabilized sand without further difficulty.

Arithmetic and Taxes

Most taxpayers below the $10,000 bracket are to be relieved of a lot of headaches next year by being allowed to file the so-called short-form return now limited to those with incomes of $5,000 or less. But for Uncle Sam the headaches growing out of simple mistakes in arithmetic probably will continue.

According to the Internal Revenue Service, it is costing Uncle Sam a lot of money every year that could be saved if taxpayers would just brush up on their arithmetic before filing their returns. IRS says the most common mistake made on last year's return was in simple problems of adding, subtracting, multiplying, or dividing. The job of correcting them was costly both in money and time.

Make sure you double check the arithmetic of your next return if you want to save Uncle Sam a pretty penny.

Engineers in Demand Again

The demand for engineers is picking up again, partly as a result of expanding missile production. Since July, says the Department of Labor, an increasing number of job openings for engineers could not be filled from the areas where the workers were needed.

Job openings haven't reached the high level of 1956, but the demand is creeping up. The number of unfilled engineering job openings for which qualified applicants were not available locally rose by 1,400 to $4,325 between July and late September, or about 400 more than in September last year. In September, 1956, there were 6,475 available openings.

The greatest demand was for electrical and mechanical engineers, specialties needed by manufacturers of missiles. The The department also reported 3,199 professional and managerial job openings going begging at the end of September.

Heavy Chemicals

Strikes and threats of strikes last week cast some doubt on the future of the chemical market, although there is still unquenchable optimism. Despite settlement of labor management differences in the auto industry, strikes at individual plants still persisted, and promised to foul up production schedules. It looked last Friday as if two major producers of glass would be strikebound this week. By press time, at least two glass plants had been idled by walkouts, and prospects for early settlement of disputes were dismal.

If two large glass producers are idled, this means a curtailment in soda ash purchases. Furthermore, if flat glass production is stopped by the strike, the auto industry could be hog-tied by a shortage of window glass. This could result in bottlenecks for a number of chemicals.

In regard to the auto strike itself, it is believed that labor-management disputes will be cleared up within a short time. Observers of the glass industry setto are pessimistic about a near settlement.

Price competition in hydrochloric and sulfuric acids continues, with varying degrees of keenness, all up and down the eastern seaboard. This is nothing new, sellers point out.

The nonferrous metals market was unsettled. Copper, lead, zinc and custom smelters' copper were stronger, while mercury and platinum declined.

The American Paper and Pulp Association reported production for the week ended October 4 at 89.9 percent of theoretical capacity, as compared with the revised figure of 92.8 percent for the previous week, and 92.7 percent for the corresponding week of last year.

Price Trends

Advanced

Lead, ½c. per lb.
Silver, ¾c. per oz.
Stannic oxide, 1½c. per lb.
Tin, ⅜c. per lb.
Zinc, ½c. per lb.

Reduced

Mercury, $2 per flk.
Platinum, $1 per oz.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
104.67	104.74	104.79	104.05

For Current Prices see page 9

Acids

Chromic—Outlook was better last week following a general easing in the labor-management disputes in the auto industry. Demand for plating in the Detroit area is expected to increase.

June saw a record racked up for chromite consumption in the United States, the Bureau of Mines says. Some 72,633 tons of chromite was used.

Of the total used, 3,095 tons of chemical grade ore were used in the metallurgical industry. The chemical industry consumed 10,333 tons of chemical grade ore in producing 7,605 tons of chemicals, sodium bichromate equivalent.

Hydrochloric—Demand is still improving, and with steel production reaching new yearly peaks, producers believe that business will continue to gain strength.

Price competition in the New England area continued last week. Some business was reported done at 50c. per ton below list. Sellers report that this is nothing new. In fact, they say, there has been spotty competition in the region at prices ranging from 25c. to $1 per ton below list.

It was agreed among most sellers that the New York area, including Northern New Jersey, has been subject to sharp, if spotty competition for the last couple of years, at least.

What is the key reason for sharpshooting along the eastern seaboard? Producers say it is seasonal influxes of by-product acid, derived from DDT manufacture.

However, it is pointed out that consumers tend to buy only limited amounts of byproduct acid during its peak seasons at lower rates, since they want to be assured of a long-term source of supply by regular producers.

Hydrofluoric—Market is firm, with most end uses showing good call. Stainless steel inquiry is up. Alkylation and Atomic Energy Commission consumption are steady. Small package business is better.

Nitric—With a better stainless steel picture, nitric acid demand for industrial use is on the upswing.

Phosphoric—Demand for mixed fertilizers has been good, although sellers are quick to point out that business volume has nowhere near approached spring peak season levels.

Industrial use is holding about steady, after a mild tapering off in demand for food grade acid for the summer beverage trade.

Sulfuric—With steel reaching its highest operating rate since November, 1957, producers of acid were more optimistic last week. There was a general belief that with auto production going into high gear, acid business would benefit correspondingly.

Competition continued in the New York and New England areas, with business reported done at $1 per ton off list in New England, and $2 to $4 off in the North Jersey-New York area.

This is old hat to most sellers, who point out that such competitive conditions along the eastern seaboard have existed for a long time. Elsewhere, prices were reported firm.

The American Iron and Steel Institute estimates that steel output last week reached 1,918,000 tons, or 71.1 percent of capacity. The actual previous week's output was 1,901,000 tons, or 70.4 percent of capacity.

Bases and Salts

Calcium Chloride—Business continues to pick up, as highway maintenance departments order ahead for ice control applications. Demand for cold weather concrete use has considerably improved, particularly in view of expanded building and highway programs.

Looking back over the year, sellers concede that business has not lived up to expectations. Two key factors were said to be the recession, and prolonged wet weather during the summer which cut down needs for dust control.

Caustic Soda—Demand last week continued to pick up gradually. Several observers pointed out that the advance was a healthy one, in moderate increments. This, they believed, was a healthy state of affairs.

Chlorine—Most producers concur that chlorine is freely available. There has been some moderate gain in demand during the past few weeks, but advances have not been as strong as expected.

One factor in the lagging pace of recovery has been heavy competition in chlorinated solvents. Imports of chlorinated solvents have definitely weakened domestic markets. Methylene chloride, for one, was called a "weak sister" in business last week.

Chlorinated solvents producers say they have been running into stiff price battles on both coasts, and in some cases, quite a ways inland as well.

Copper Sulfate — Effective today with higher metal, CP and crystal will advance 25c. per hundred pounds, and tribasic, 50c. per cwt.

Phosphorus—Red phosphorus remains unchanged in price. Demand continues restricted to specialized needs. Supplies are adequate for current requirements.

Soda Ash—Two plants of a major glass producer were struck last week, and it looked as if two major glass producers would be strikebound this week.

What would this do to dense soda ash? Most producers say that business would be hurt, provided the strike is general and of any appreciable duration.

Not only would the dense ash sales picture suffer as a direct result of the strike; sellers point out that shortages of glass brought about by such a dispute could seriously hamper automobile manufacture, thus adversely affecting a welter of chemicals connected with the auto industry.

Observers of the glass industry position last week were of the opinion that the immediate outlook for settlement was dismal. One source said that while wages

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6235-A

OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS — BALTIMORE 3, MD.

Heavy Chemicals

were not of primary importance, there had been a considerable stiffening of backs among glass producers at union fringe demands.

Sodium Phosphates—Demand is slightly better now. In September, business was below August levels. Some producers reported record sales in August, as soapers were very active during the month.

Sodium Silicofluoride—Demand for silicofluorides in general is better. A major factor in the firmer tone of business is renewal of fluoridation contracts at stable quotations with a large number of municipalities.

While supplies are still readily available, it is believed that production at present is running more in line with demand. Last summer, on the other hand, recovery from phosphate operations was well ahead of inquiry.

Stannic Oxide — With higher tin, stannic oxide rose last week to $1.04½ to $1.05½ per pound.

Nonferrous Metals

Aluminum—Output rose to 125,419 tons in August from 118,541 tons in July, according to the Aluminum Association. Total output for the year through August is 1,006,521 tons, not far below the 1,109,617 tons put out at the same time last year.

Copper—A leading producer will advance copper prices 1c. per pound today, making primary producers' metal 27½c. per pound, delivered US destinations.

Lead—Metal rose fractionally, and was quoted at 12.3c. E. St. Louis, and 12½c. per pound, New York.

Mercury—Metal was weaker, quoted at $235 to $238 per flask, spot.

Platinum—Metal declined to $54 to $60 per troy ounce, spot.

Silver—Bullion was stronger after advances the previous week, and was quoted at 89⅞c. per troy ounce, spot.

Tin—Market continued to strengthen, and straits metal rose to 95⅞c. per pound, spot, on Friday.

Zinc — Metal was firmer last week, quoted at 11c. E. St. Louis, and 11½c. per pound, New York.

Cowles

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DRYMET*—The original anhydrous Sodium Metasilicate

DRYORTH*— Sodium Orthosilicate. Technically anhydrous

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As a superior wood preservative—inexpensive and long lasting. Prevents decay and termite damage.

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As a mordant in textile dyeing and calico printing.

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As an active ingredient of Bordeaux Mixture sprays and dusts for the control of plant diseases and as an ingredient in fertilizers for copper deficient soil.

WATER WORKS
As an algacide to clarify water and to eliminate root and fungus growth in sanitary sewers and storm drains.

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As a raw material used in making copper chemicals and compounds.

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As a flotation reagent in the treatment of lead and zinc ores.

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As an electrolyte for copperplating and for coloring metals.

We will be happy to send detailed information on Triangle Brand Copper Sulfate.

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Drug Advertising Seen Due to Feel Big Stick

—Continued from page 4

articles is the seller's usual retail price for the single article.

6. So-called "½ price" or "50 percent off" or "1 cent" sales must be factually true, and, if conditioned upon the purchase of additional merchandise, this fact must be conspicuously disclosed.

7. Products must not be advertised as being sold to the consuming public at "factory" or "wholesale" prices unless they are actually being offered at the same price that retailers regularly pay and are less than customary retail prices for the article in the trade area where the bargain price is claimed.

8. No article should be "pre-ticketed" with any price figure that exceeds the price at which the article is usually sold in the trade area where the product is offered for sale.

9. Comparative prices must not be used in the sale of articles described as "imperfect," "irregular," or "seconds" unless the higher comparative price is conspicuously disclosed to be for the same article in new and perfect condition.

Nine-Point Guide

The nine-point guide includes some general instructions by the Commission to its staff on how to evaluate the import of advertising as well as the actual words used. The principles outlined are:

- That advertisements must be considered in their entirety and as they would be read by those to whom they appeal.
- That advertisements as a whole may be completely misleading although every sentence separately might be literally true. This may be because things are omitted that should be said, or because the ads are printed in such a way as to mislead.
- That advertisements are not intended to be carefully dissected with a dictionary at hand, but rather to produce an impression upon prospective purchasers.
- That whether or not the advertiser knows the representations are false, the deception of purchasers and the diversion of trade from competitors is the same.
- That a deliberate effort to deceive is not necessary to support a charge of using unfair methods of competition or unfair and deceptive acts within the meaning of the law.
- That laws are made to protect the trusting as well as the suspicious.
- That pricing claims, however made, which are ambiguous should be interpreted in the light of the FTC's purpose, which is to prevent claims which have the tendency and capacity to mislead.

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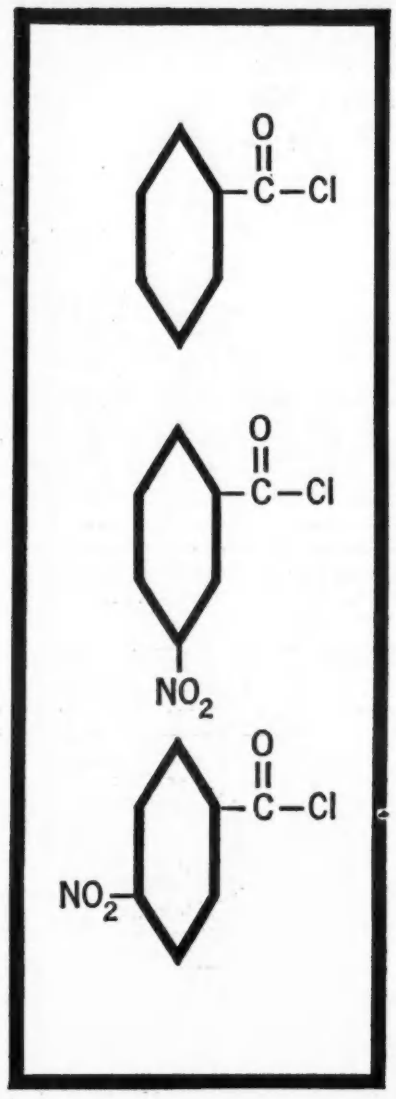

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It's 99% pure. It's clear. You can get it in quantity . . . in 5- and 13-gallon glass carboys or in 55-gallon drums, either nickel- or lacquer-lined steel.

Our product freezes at *minus* 0.9° C. or higher and boils at 197.3° C. It distills from 2% to 97% over a 3.5° C. range.

There's much more information in our technical data sheet on the compound. Write for a copy.

While you're at it ask for a sheet on these chemical cousins: benzyl chloride and the META- *and* PARA- *isomers of nitrobenzoyl chloride.*

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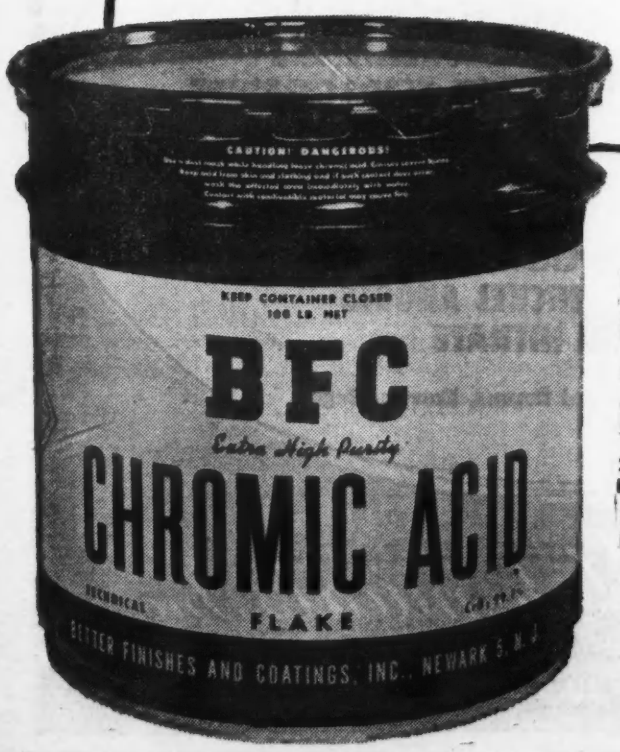
Simple story. But that's it and a lot of satisfied users say it's plenty. Could be you'd like the friendly way we do business. We sure will appreciate your orders and treat them right. We figure that all of you are much, much smarter than any of us.



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Catalysts & Chemicals Has Now Olefin Streams Purifier

Catalysts & Chemicals, Inc., Louisville, Ky., has developed a new type of catalyst for the purification of olefin streams by means of selective hydrogenation.

According to the company, the new catalyst—"C36 Selective Hydrogenation Catalyst"—Contains nickel, cobalt and chromium on a rugged alumina support. It has been undergoing field tests in a commercial ethylene plant since early this year, Catalysts & Chemicals says.

The company has published a technical bulletin (No. C36) giving detailed information on the new material. Also, a paper was read on it at a meeting of the Association of Industrial Chemical Engineers, in Salt Lake City, Utah. Copies of the paper and the bulletin are available upon request from the company.

Minneapolis, St. Paul

—Continued from page 7

vice-president for research and development at H. B. Fuller Company.

At the market shop there will be discussions on adhesives, polyethylene, fluorocarbons and epoxy resins.

The speakers will include: W. H. Bromley, Jr., director of marketing for Shawinigan Resins Corporation; J. C. Hoopes, manager of field distribution for the freon products division of E. I. duPont de Nemours & Co.; A. Jonnard, manager of the trade analysis department of Shell Chemical Company, and E. W. Segebrecht, director of central marketing studies for Spencer Chemical Company.

Panelists will include: S. D. Koonce, manager of the market research department of American Cynamid Company; W. L. Machmer, jr., director of purchasing for the General Chemical Division of Allied Chemical Corporation; Frank Murphy, midwest sales manager for National Starch Products, Inc.; P. W. Wood, midwest zone manager for Bakelite Company, a division of Union Carbide Corporation, and H. W. Zabel, executive vice-president of Roger Williams Technical and Economic Services, Inc.

Dinner speakers will include Harry A. Stuhldreher, one of the former "Four Horsemen of Notre Dame" and now an assistant vice-president of United States Steel Corporation, and Dr. L. M. Gould, a noted Arctic explorer and president of Carleton College.

Hitchcock Adds Consultant

John H. Schaefer, a retired vice-president and former director of Ethyl Corporation, has become a special consultant on management and technical problems in the petrochemical field for Lauren B. Hitchcock Associates, New York. Mr. Schaefer was president and director of the Industrial Research Institute and a director of the Lead Industries Association.

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PACKED 24 FIVE-POUND CANS IN A CARTON

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1,000-case lots @ $3.75 per case
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Pitts. Plate Unit Man Elected by Canada PVLA

The Canadian Paint, Varnish & Lacquer Association has elected a new president to run the affairs of the association for the next year. He is Henry O. Farr of Canadian Pittsburgh Industries, Ltd., a subsidiary of Pittsburgh Plate Glass Company, Pittsburgh, Pa.

Mr. Farr succeeds Charles C. Pettet, who offered his resignation at the meeting which was accepted by the board of directors. Mr. Pettet had been serving as the paid president of the association, and also as general manager. Eric L. Barry, who was assistant to Mr. Pettet, was elected general manager.

Market Research Man Named

Ralph A. Stevens has joined Allied Chemical Corporation, New York, as manager of market research for its Barrett division. Mr. Stevens was formerly with the mechanical goods division of United States Rubber Company, where he served three years as assistant to the manager of new products sales, three years as analyst on the general manager's staff, and eight years as manager of market analysis.

Chemical Men Told

—*Continued from page 5*

obvious threat to American interests, and yet it will constitute a strength factor for the western nations.

In relation to the US chemical manufacturer, Mr. Hilldring went on, the effects of the common market have already been felt. He asserted that "American foreign trade has been drastically reduced" since the high water mark years of 1948, '49 and '50.

What is the American answer? Mr. Hilldring voiced the opinions of an American manufacturer quoted in a French newsletter: "Overseas manufacturing is a must in continuing to deal with Europe. If American manufacturers don't accept this, they may have to learn the hard way by seeing their export markets wither on the vine."

The only solution, Mr. Hilldring concluded, despite obvious reservations on the European common market, "is to accept, not to fight it, and join it while there is still time."

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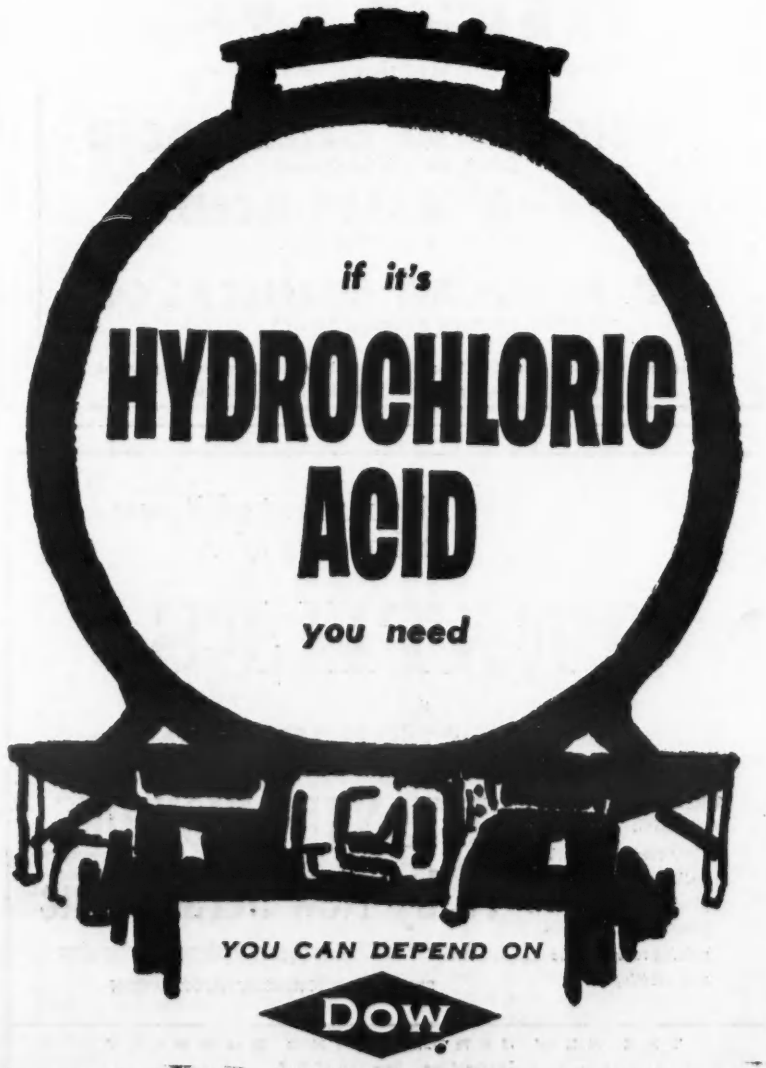

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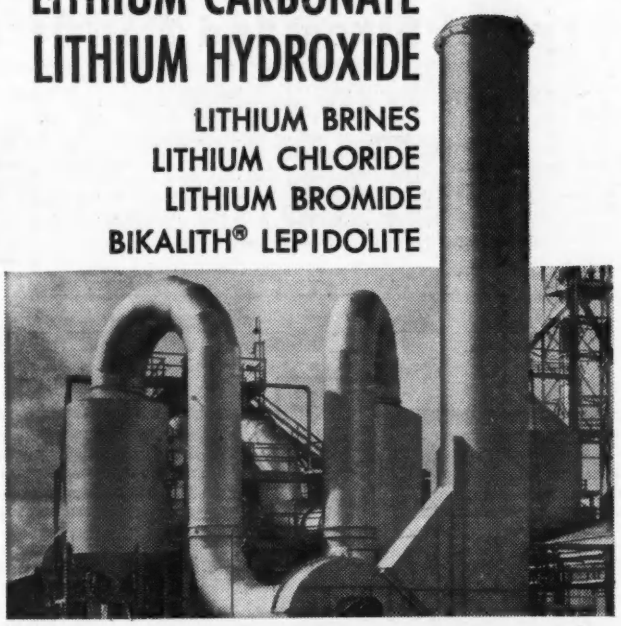

American Potash & Chemical Corporation

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Export Division: 99 Park Avenue, New York 16, New York

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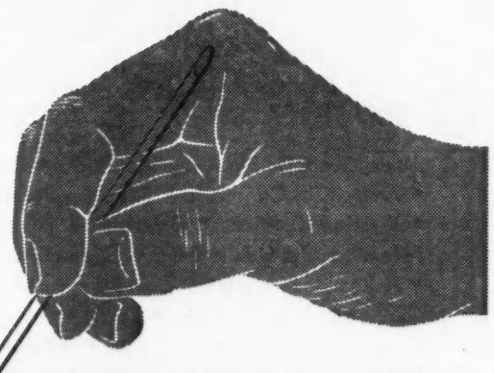

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METSO DETERGENTS

Associates: *Philadelphia Quartz Co. of California; Berkeley & Los Angeles, California; Tacoma, Wash.; National Silicates Limited, Toronto, Canada* 9 PLANTS • DISTRIBUTORS IN OVER 65 CITIES Trademarks Reg. U.S. Pat. Off.

Obituaries

Paul Brown Pew

Paul Brown Pew, vice-president of Linde Company Division of Union Carbide Corporation, New York, died October 9 in that city. He was sixty years old.

Mr. Pew had been with the company for thirty-five years. During World War II, he was a director of the company's participation in the Manhattan District Project, which developed the first atomic bomb.

Earlier, Mr. Pew participated in the development of the Driox Oxygen System, a process of producing oxygen in liquid form.

Elliot K. Luddington, chairman of the board of Chase Bag Company, New York, died October 8 in that city. He was eighty-two years old. Mr. Luddington had been in the packaging field since 1896.

Sidney G. Osborne, a chemist and inventor with Hooker Chemical Corporation, Niagara Falls, N. Y., died October 9 in Hamilton, Ontario, Canada. He was seventy years old. Mr. Osborne had been with Hooker for forty years. He was a specialist in fluorine chemistry.

Dr. Frank E. Stirn, director of mechanical research and development at the Pearl River, N. Y., facilities of Lederle Laboratories, a division of American Cyanamid Company, died October 9 in Monsey, N. Y. He was forty-six years old.

Dr. Henry S. Thomas, director of medical service for Merck Sharp & Dohme Research Laboratories, a division of Merck & Co., died October 9 in Fort Washington, Pa. Dr. Thomas joined Merck in 1951.

Hercules' New Plant

—Continued from page 3

producing an unusually high-quality urea.

Principal end use for urea will be in "UN-32," a long-lasting, high-nitrogen-yield liquid fertilizer containing 35 percent urea and 45 percent ammonium nitrate. The urea can be used for direct foliar applications because of its purity. "UN-32" has no pressure, no volatile ammonia, and contains 32 percent nitrogen. "UN-32" is also compatible with weed killers such as 2-4-D, and accelerates decomposition of crop residues and compost.

The remaining 25 percent of production will be used largely in the manufacture of urea formaldehyde resins required by the plywood and particle board industry. A feed-grade urea will also be available for cattle feeds.

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Textile, Leather Chemicals

Feature of the textile and leather chemicals market was the drastic price decline of Brazilian tapioca flour for shipment due to lower Brazilian foreign currency regulations. This combined with liberal stocks caused shipments to recede sharply—¾ cents per pound. Stocks on spot also were easier and declined fractionally. Siamese tapioca flour also became unsettled, but only declined slightly. The drastic break in Brazilian flour narrowed the price differential between Siamese and Brazilian material.

Trading in most materials last week continued fairly active for nearby requirements. Buyers also showed more interest in later delivery, though actual sales were restricted to prompt delivery. Prices continued steady at unchanged levels. In the chemical group, an improved demand was noted against contracts and for immediate needs. Tanners continued to limit purchases of tanning materials to nearby shipment.

Production of shoes and slippers in August dropped to 50,388,000 pairs, 8 percent less than the 54,968,000 turned out in August, 1957, it was reported by the Census Bureau. August footwear output topped July's 46,066,000 pairs by 9 percent but the increase was considered less than seasonal. The agency's seasonally-adjusted index of footwear production dropped to 113 in August, from 119 in July (1947-49 equals 100). In August, 1957, the index stood at 118.

Ten of 11 individual categories of footwear showed production declines from August, 1957. Only men's and boys' slippers showed an increase, with production rising to 2,090,000 pairs from 1,991,000 a year earlier.

Production of cotton broad woven fabric in the second quarter of 1958 was 6 percent below the previous quarter and 10 percent lower than the second quarter in 1957, it was reported by the Department of Agriculture.

Price Trends

Advanced
None

Reduced
Tapioca flour, spot, ½c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
100.83	100.83	100.83	103.54

For Current Prices see page 9

Chemicals

Bichromates—Steady tone prevailed in this market. Prices were unchanged and well held for all grades. Good demand was noted against existing contracts and for spot requirement.

Hydrogen Peroxide — Consumers absorbed sizable lots for prompt needs. Market remained steady at current quotations.

Sulfonated Oils — Consumers absorbed larger lots, chiefly for actual needs. Prices were fairly steady and unchanged.

Sizing Materials

Albumin Egg—Business was reported quite active for prompt needs. Market remained steady at unchanged quotations. Flake was held at $1.05 to $1.07 per pound, and powder, $1.09 to $1.11 per pound, spot, according to quantity. Demand for technical grade was moderate for actual needs. Stocks on spot were maintained from $1.08 to $1.10 per pound, exwarehouse, depending upon quantity.

Corn Starch — Seasonal improvement continued for prompt requirements. Volume of business has been stepped up. Prices remained steady at prevailing levels. Pearl was quoted at $7.38 per 100 pounds, paper bags, carlots, New York basis and powder $7.50, same basis. Less carlots were 15c. higher. Visible corn supply declined 693,000 bushels to 72,475,000 bushels for the week ending October 3, compared with 100,578,000 bushels for the corresponding week last year it was reported by the Chicago Board of Trade.

Final support price for 1958 corn crop was set at $1.36 per bushel by the Department of Agriculture last week and reflects 77 percent of parity. Last year's support was $1.40 per bushel, also 77 percent of parity.

The $1.36-a-bushel rate will be paid to farmers who comply with government acreage curbs. Corn grown in defiance of these allotments will be supported at 60 percent of parity, or $1.06 a bushel. Both the compliance and non-compliance prices will be available only in the commercial corn growing area. The price of corn grown outside the commercial area will be paid at a national average of only $1.02 a bushel, reflecting 75 percent of the full $1.36 support.

Production of 5.1 billion bushels of corn is indicated for the 1958-59 marketing year, by the department. This represents 134.8 percent of the normal supply of 3.8 billion bushels and, calls for a support level of 75 percent of the October, 1958, parity for corn—$1.76 per bushel. This would work out to $1.32 a bushel, but since the preliminary minimum support was set at $1.36 a bushel, the law forbids a cut in the preliminary level.

Egg Yolk—Trading was fairly active for actual requirements. Prices were unchanged and steady, ranging from $1.20 to $1.22 per pound, depending upon quantity.

Potato Starch—Lower prices for new crop starch announced the week previous have not increased buying interest. Business was limited to actual needs. Market was quiet, but steady. Carlots were named at 6c. per pound, carlots, f.o.b. mills, Maine and at 5¾c. for delivery outside of the New England area. While prices at mills were lower, stocks on spot remained unchanged from 8¼c. to 9¼c., exwarehouse, according to quantity. Idaho starch unchanged and steady at 5.8c. per pound, carlots, f.o.b. mills, less ½c. for shipment to eastern points.

Sago Flour—Shipments were firm reflecting active interest from foreign buyers. Replacements were maintained at 5¼c. per pound, exdock, prompt shipment from Singapore. Stocks on spot were in light demand. Raw was unchanged at 7¼c. to 7½c. per pound, exwarehouse as to quantity and refined, 9c. to 9¼c., same basis.

Tapioca Flour—Brazilian flour for shipment dropped sharply—¾c. per pound, as a result of lower foreign currency regulations and liberal stocks. This has reduced the price differential between the Brazilian and Siamese flour. B grade of the former was reduced to 5½c. per pound, carlots, exdock, New York, prompt shipment and A grade to 5¾c., same basis. Siamese flour also was unsettled, but only slightly lower. B grade was quoted at 5c. per pound, carlots, exdock, prompt shipment and A grade, 5¼c., same basis. Brazilian flour on spot also was easier, and declined ½c. per pound. Prices ranged from 10c. to 10½c., exwarehouse, depending upon quantity.

Tanning Materials

Chestnut Extract — Shipments were quiet, but maintained at prevailing levels. Buying interest was limited to nearby shipment. Solid extract, 60 percent tannin was named at 8.55c. per pound, carlots, exdock, prompt shipment and 68 percent powdered 9.69c., same basis.

Cutch—Shipments were steady and unchanged at 7½c. per pound, exdock, prompt. Demand was spotty, chiefly for nearby.

Quebracho Extract—Hand to mouth buying was reported for nearby shipment. Prices were well held at former levels. Solid clarified, 64 percent was quoted at 10.8713c. per pound, carlots, exdock, prompt shipment and solid ordinary at 9.9228c., same basis.

Valonia—Buying interest continued to lag. Shipments were unchanged. Beards were quoted at $88 to $90 per ton, exdock; cups, at $66 to $67 per ton and extract, 11c. per pound, same basis.

Wattle—Consumer interest was spotty, with trading confined to actual needs. Shipments were unchanged. Fair average was quoted at $68 per ton, exdock, prompt shipment and merchantable, $64, same basis. Extract was unchanged. African 60 percent was held at 8.275c. per pound, and South African at 8.4c., carlots, exdock, prompt shipment.

Petroleum Derivatives

Seasonal buying encouraged this market to stand a little straighter and show a little less humility last week. In fact, a resurgence of the old industrial pride has been creeping back into the market from half a dozen freshly opened vistas of hope. Standing in the lists with the seasonal factor are: the freshly resolved labor situation in the automobile industry, an upswing in production in that industry and also in the steel industry, and finally a fresh outlook in the national economic picture. Also, there is the earlier developed element of stepped-up government buying which has been playing no mean role in the toluene situation. On the seasonal side of the scale, LPGs are coming back into their own with the advent of the cold weather months. Other heating and fuel oils are also being propped. With the hike in the automobile position, many of the contributing solvents and diluents have been touched with the first strong feelers of interest in more than a year.

The revised estimate of domestic demand for refined products in 1958 is 8,990,000 barrels per day, an increase of 2.1 from 1957. This revised forecast is based upon actual figures for the first six months and current American Petroleum Institute data for the months of July and August. Crude production for the year is expected to average 6,717,000 barrels daily, 6.3 percent below 1957 and total stocks will show a 50 million barrels decline for the year.

For the fourth quarter of this year, domestic demand is expected to average 9,595,000 barrels daily which is 4.9 percent above the same quarter in 1957 and less than one percent above the previous forecast for this period made in January. Stocks of crude oil are expected to increase during the fourth quarter while product stocks, following the normal seasonal trend, should show a decline of about 33 million barrels.

For the fourth quarter of 1958, crude oil production is expected to average 7,150,000 barrels daily, a 4 percent increase from the same quarter in 1957, and imports of crude oil are estimated to average 955,000 barrels daily.

The daily average production of liquefied gases at refineries was 6.7 million gallons, 11 percent greater than a year ago, according to a report by the Bureau of Mines. The demand for liquefied gases for fuel and chemical uses in July, the report notes, was 9 percent higher than July, 1957. Stocks of liquefied gases totaled 820 million gallons, 140 million gallons below a year ago. Underground stocks of liquefied petroleum gases on July 31 totaled 663 million gallons an increase of 90 million gallons during the month.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
104.54	104.54	104.54	106.64

For Current Prices see page 9

Solvents and Diluents

Benzene—Producers of styrene—a pretty grim lot during the black days of the recession—have been reported flashing infrequent though significant smiles of late. The reason: what was initially thought to be an automobile industry labor crisis has dissolved into the ether. Not that the situation is resolved for that industry, but the consensus is that stepped-up steel and automobile production in the past months—part of a "strength through output" attitude seemingly adopted by the economy as a whole—is leading demand out of the valley of economic morphia. A styrene demand upswing is the plum in the benzene pie. There is little question that benzene producers will have their plum, in the immediate months ahead, but national industrial leaders question whether the plum was plucked prematurely, i.e., will the shifted production factor have the strength to carry the economy up with it all the way or will there be another relapse. Not even the heroes of industry will venture a guess at this point.

Toluene—Government giveth and government taketh away. Give a little reverse English to this loose paraphrase and you have the toluene story. Government buying earlier in the toluene career was the singular pillar of strength; truncated, the pillar stole the material's strength reserve and the well known picture of heavy stocks and sorely limited demand evolved. Now government buying is once again become a stanchion of, if not demand, at least hope of such. The question is, will the government fullfill its promise. Present buying in toluene is conceded to represent the demands of a wartime economy. Thus, the convolusions of the world political and military situation might almost be said to be the basis for further developments in this market. This base is notorious for its instability, of course, a factor that will become evident during the coming months, some producers suggest.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended Sept. 27 totaled 248,045,000 barrels, according to data reported by the Bureau of Mines. Compared with the total of 242,584,000 barrels for the preceding week, this represents an increase of 5,461,000 barrels comprising an increase of 3,259,000 barrels in stock of domestic crude and an increase of 2,202,000 barrels in stocks of foreign crude.

LPG's

Propane—Production of this material at plants in July amounted to 235,619,000 gallons while refinery production amounted to 114,954,000 gallons, according to the Bureau of Mines monthly roundup. Stocks of propane at plants, terminals and underground were tallied at 406,930,000 gallons as compared with the 332,229,000 gallons on hand at the end of June. Deliveries of propane from plants and terminals for use in gasoline amounted to 4,578,000 gallons, the Bureau report says. Demand for other uses amounted to 271,504,000 gallons.

Butanes—Production of this material at plants amounted to 127,143,000 gallons; production at refineries was computed at 48,426,000 gallons, according to the Bureau of Mines report for July. Stocks at plants terminals and underground amounted to 254,414,000 gallons at the end of July as compared with the 259,692,000 gallons in stock on June 30. Demand for butanes, through deliveries from plants and terminals for use in gasoline, was tallied by the Bureau at 54,239,000 gallons while demand for other uses amounted to 125,975,000 gallons.

Miscellaneous

Crude oil—Production of crude petroleum in the United States averaged 6,571,000 barrels per day in July, an increase of 230,000 barrels daily over June's production, according to a report by the Bureau of Mines. Most of this increase, the report notes, was accounted for by a 126,000 barrels per day increase in Texas and moderate increases in the other states in district III.

The indicated demand for domestic crude oil increased 45,000 barrels per day to a daily average of 7,665,000 barrels while stocks of domestic crude decreased 227,000 barrels per day during the month. Total crude stocks, domestic and foreign, amounted to 246,556,000 barrels on July 31, compared with 253,550,000 barrels at the end of June. Total well completions, including service wells and dry holes, amounted to 4,416 in July of this year, compared with 4,263 total completion in July, 1957.

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Aliphatic Organics

Business looks good; there is no profound weakness in any area of the market. Such was the gist of comments from trade sources last week. No one denied, of course, that there were certain soft spots; notably, methylene chloride, perchloroethylene and trichloroethylene, demand for which has been lessened by the ready availability of imported material. But on the whole, the business recovery as well as confidence in further growth was very much apparent.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
130.74	130.74	130.53	131.12

For Current Prices see page 9

Helping organic chemicals to throw off the recession pallor was the improvement found in several of the major consuming industries; plywood-bonding, construction, textiles, synthetic fibers. Also, the settling of Detroit's labor difficulties did much to stir up optimism everywhere, but among solvents producers, in particular.

Practically every trade source reported a very busy September. Alcohol demand was particularly brisk as buyers, faced with the projected October 1 price advance, came into the market for very sizable quantities. Acetic acid sales also were up that month and interest in both formaldehyde and methanol, for a longtime at a minimum, picked up, adding credence to rumors that prices of these two chemicals, seen as unrealistically low, may be advanced January 1.

Requirements for ethylene glycol have multiplied with the seasonal rise in demand for antifreeze. Continual ascent of the sales curve up until mid-November is looked for by producers who sell to outside customers. Much of the antifreeze sold is, of course, manufactured and marketed by ethylene glycol producers themselves.

Acetic Acid—Announcement by a leading producer of plans to double the capacity of one of two acetic acid plants—work to be completed by the end of 1959—is good indication of what's seen as the market potential for this chemical.

Most of the expected growth in the use of acetic acid, it's said, will come via the many materials for which this chemical is a fundamental building block. Among these materials, and by no means exhausting the list, are included acrylate esters, acetic anhydride, and vinyl acetate, which, in turn, may be upgraded by the producer into fibers, industrial chemicals, and plastics. Textiles will play a lesser role in future expansion of the acetic acid market, it's understood.

Contrary to what was originally anticipated, sales of acetic began to climb in July and August. This upturn culminated in the brisk movement of September which shows every sign of continuing through October, informed trade people mentioned last week.

Though sales volume has increased, mounting costs have prevented a corresponding rise in profits, which is the case with many organic chemicals today. Despite this fact, a price change is not yet indicated, spokesman for a producer noted.

Amyl Acetate—Used principally as a lacquer solvent, amyl acetate continues in good supply, subject to moderate interest. Prices appear firm. For primary amyl acetate, reduced 1¼c. per pound last May, the quote is 16½c. per pound, tankcars on a delivered basis.

Dipentaerythritol — Producers report limited availability of this chemical, said to be an unfortunate circumstance because the recent development of new applications has encouraged demand. But there is no way of making di-PE, it's said, other than via the normal crystallization process of other grades of PE. And, of course, PE production has been held down for fear of adding to already ample inventories.

Ethyl Alcohol—Quotations on ethyl alcohol and most denatured grades were advanced 5c. per gallon, effective October 1. The exceptions were proprietary solvent, and SD-40, upped 6c. and 8c. per gallon, respectively.

The price increase coming as it did at a time when a business recovery was taking shape provides a good clue to "thinking" in at least one segment of the chemical industry. Who should know more about the business climate, observers reason, than producers of alcohol, a chemical whose end-use pattern is so diversified. It's easy, they say, for alcohol makers, to keep their finger on the pulse of many, many industries just by looking at sales charts.

The same market strength widely-reported by trade sources during the past few months showed no signs of diminishing last week. Demand, as expected, tapered off slightly from September when the stimulus of a projected price hike propelled the sales curve upward in record fashion.

Ethylene Glycol — Requirements for ethylene glycol, whether captive or from outside customers, have increased since June. September was reported to be a good month and further gains are expected this month and in November. This is, of course, due to the rise in demand for non-volatile antifreeze, which soaks up approximately 70 percent of domestic output. Also following the normal seasional pattern, ethylene glycol production has been up in the past few months.

Formaldehyde — Back this summer, it was thought likely that producers who had cut formaldehyde prices seven-tenths of a cent per pound across-the-board in early May might announce a return to the former or even higher levels October 1

Aliphatics Foreign Trade: July

Exports and imports of industrial aliphatic organics for the months of July and June, 1958, as reported by the Bureau of Census, were as follows:

		July	June
EXPORTS			
Acetone	lbs.	553,970	602,225
Butyl acetate	lbs.	2,708,717	80,258
Butyl alcohol	lbs.	3,259,690	194,081
Ethyl alcohol and methylated spirits	gals.	4,158	5,839
Ethylene glycol	lbs.	6,788,075	1,099,088
Glycerine, 100 percent basis	lbs.	929,094	2,982,511
Methyl alcohol	gals.	477,075	1,141,844
Methyl ethyl ketone and methyl acetone	lbs.	640,858	1,642,641
Propyl alcohols	lbs.	4,261,558	328,867
IMPORTS			
Acetic acid (over 65 percent)	lbs.	459,190	892,660
Acetic anhydride	lbs.	1,900	436,820
Acetone, MEK and homologues	lbs.	0	208,092
Amyl alcohol and fusel oil	lbs.	0	0
Butyl alcohol	lbs.	0	0
Chloroacetic acids (mono and tri)	lbs.	513,129	374,916
Ethyl alcohol	gals.	0	0
Formic acid	lbs.	185,101	87,778
Glycerine, crude	lbs.	2,578,335	860,593
Glycols, their ethers and esters	lbs.	21,282	897
Lactic acid (55 percent or more by weight)	lbs.	10,938	3,840
Methyl alcohol, including wood alcohols	gals.	0	0
Tetrachloroethane	lbs.	0	0
Trichloroethylene	lbs.	2,678,896	2,149,744
Vinyl acetate, unpolymerized	lbs.	1,534,883	2,299,260
Vinyl alcohol, including derivatives	lbs.	1,524,460	1,262,051

Aliphatic Organics

In keeping with the traditional pattern of adjusting prices quarterly. Such was not the case, of course, but this does not rule out the possibility of a price hike January 1, informed sources say, because the impetus will be just as strong then. That impetus: ever-mounting costs and a very unrealistic profit margin.

Examined in terms of supply and demand—too much of the former, too little of the latter—the very low formaldehyde prices may seem realistic. But on the basis of profit-return, there is no question that a price advance is justified, even necessary, it's pointed out. Also prompting a revision of prices is the improvement in demand, from the plywood bonding trade among other users, and the fact that producers have prevented the further accumulation of inventories by curtailing production in recent months.

Glycerine—Combined production of crude and synthetic glycerine in July dropped to 13,809,000 pounds from 16,346,000 of June, the Association of American Soap and Glycerine Producers reported. This brought the cumulative total for the first seven months of the year to 115,297,000 pounds, considerably below the 137,115,000 pound output of the comparable period during 1957.

Imports rose in July to 2,063,000 from 688,000 of the month prior while exports fell off appreciably—929,000 pounds compared with 2,983,000.

Glycerine consumption declined from 20,386,000 in June to 18,109,000 in July, exceeding production by about 4 million pounds.

By July's end, stocks had dropped to 60,158,000 pounds, representing approximately 90 days supply.

Isoamyl Alcohol—Current tankcar quotation on isoamyl alcohol is 25c. per pound, freight allowed, East. For drum, carlot quantities the price is 27½c., for less carlots 28½c. per pound, same basis. Market, generally, appeared steady with demand running at about normal volume.

Isopropyl Alcohol—A new schedule was issued October 1, boosting IPA quotations 5c. per gallon across the board. Such

Methylene Chloride—Sources continue to note a softness in the methylene chloride market, first apparent early this past summer. Some in the trade attribute this situation to the large amount of foreign material that has appeared on the domestic scene in the past few months. Thus far, there has been no indication that prices will be lowered to meet competition from imports, if such actually is the case.

NPVLA's Keynote

—Continued from page 7

and the third will be for advertising and sales promotion managers.

At the roofing forum there will be a panel discussion on "Modern Management for Roof Coating Manufacturers." The legislative session will feature papers on air pollution and labeling and the advertising and sales promotion forum will deal with color, marketing, sales training and public relations.

The program on the second day will feature a management workshop session, which will be divided into three sections: chemical coatings, trade sales and general subjects. This will be followed by a luncheon and forum for putty, glazing and caulking compound manufacturers. A feature will be a panel discussion on "Major Management Problems of the Putty, Glazing and Caulking Compound Business."

Another feature of the day will be a general forum on "Effective Communications in Business."

On the final day, at a general session, there will be two addresses: "What You Don't Know About Paint and Painting," by William E. Hood, regional vice-president of NPVLA, and "The Fabulous and Critical 60's," by Leo Cherne, executive director of the Research Institute of

Lead, Zinc Quota

—Continued from page 3

the president had no authority to "compromise" Tariff Commission recommendations.

Although the lead and zinc case does not stand on all fours with the bicycle case, there is enough similarity to throw it, along with a number of other escape clause actions, into the category of legally-doubtful tariff proclamations, according to government informants.

While the Tariff Commission split 3-3 in the lead-zinc case on the type of relief that should be extended to the domestic industry, the President accepted only the unanimous finding of the commission that the industry was entitled to relief and then proceeded to make his own determination of the relief to be granted.

Among other escape clause tariff proclamations being viewed with some suspicion are those involving duty increases on clothes pins and clover seed, as well as some of the import-restricting "gentlemen's agreements," which the President negotiated with other governments in lieu of raising tariffs.

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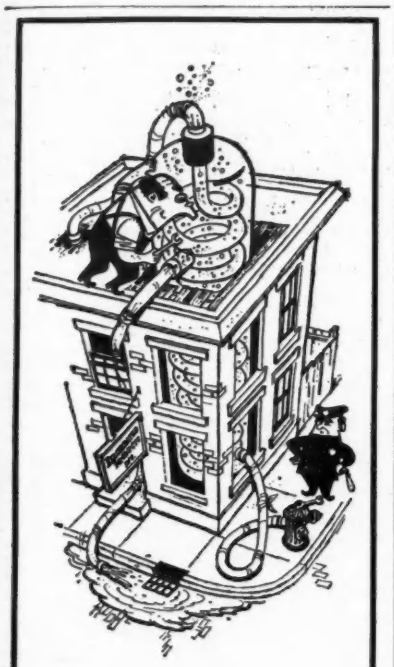

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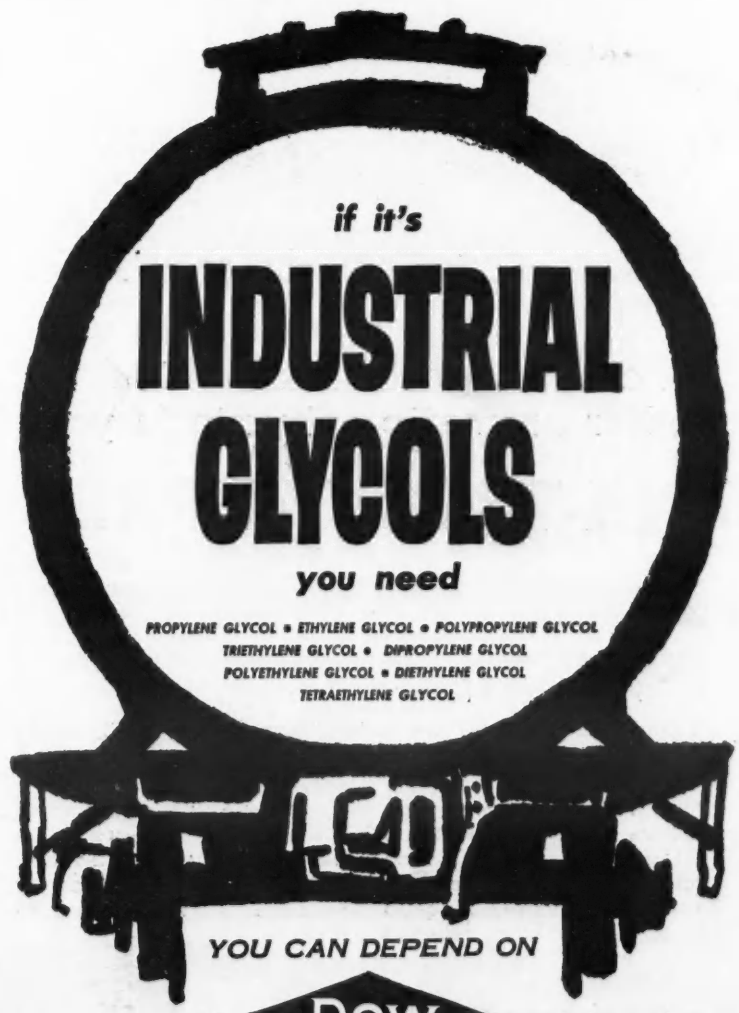

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Allied Chemical

Coal Chemicals

Other producers were going along with the advances in creosote announced two weeks ago by a major tar distiller. The increases were slated to become effective after October 30, when straight creosote oil will be advanced 4 cents per gallon to 24 cents in tankcars, while coaltar for solutions will be raised 1 cent to 17 cents per gallon, same quantity. Creosote solutions will be adjusted accordingly. No other price movement was noted in coal chemical markets last week.

Solvents markets continued to gather momentum, although the extent of the upturn will depend on future developments in the automotive industry, it was said. Toluene market was improved as a result of substantial amounts of petroleum material being used in aviation gasoline. Steel operating rate moved up over 71 percent, the highest since November of last year.

Naphthalene market was quiet. Consumers were watching the phthalic anhydride market closely for any further price developments. A reduction in phthalic would bring great pressure to bear for a naphthalene reduction as approximately 80 percent of naphthalene supplies go into the production of phthalic anhydride. Movement of PA to the plasticizer and alkyd resins outlets has been on the upgrade. Price shading in the former materials by marginal producers is still common, it was said.

American Iron and Steel Institute estimated that steel production in the week ended October 12 would amount to 71.1 percent of theoretical capacity equivalent to 1,918,000 net tons of steel. Output of steel was 1,901,000 net tons in the week previous, 1,780,000 in the comparable week one month ago and 2,105,000 tons in the corresponding week one year ago.

Shipments of finished steel products from mills during August totaled 4,835,023 net tons, up more than 18 percent over the July figure. Shipments of steel in the first eight months of the year amounted to 37,618,370 net tons compared with 56,392,714 tons in the comparable period one year ago.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
118.53	118.53	118.58	118.19

For Current Prices see page 9

Basic Products

Benzene—Market continued to show improvement, according to reports of coke-oven operators contacted last week. Calls from phenol and styrene makers have been on the increase after a long period of inventory reduction. The slow buying was especially noticeable in the styrene market at the close of last year and most of this year. Phenol and insecticide outlets have been comparatively well maintained during the recession period, it was said.

Imports have been on the increase in recent months. July figures from the Census bureau indicated almost nine million gallons in imports from Russia and Poland. A report in the trade press last week said that a single shipment of approximately five million gallons had arrived from Russia.

Census bureau reported July imports totaled 8,897,025 gallons valued at $2,133,431. A shipment from Poland in at New Orleans amounted to 1,815,993 gallons with a value of $393,465 for a per gallon value of 21.6c. Imports at Galveston from Russia amounted to 6,255,702 gallons valued at $1,532,044 for a per gallon value of 24.4c. Russian material entering at Michigan during the month totaled 825,330 gallons valued at $207,922 for a per gallon value of 25.1c.

Coaltar—Resale material for use in solutions was slated to be advanced 1c. per gallon in tankcars, effective after October 30. Other producers were going along with the advance, which was announced by a major tar distiller two weeks ago.

Bureau of Mines reported production of crude coaltar in August amounted to 57.1 million gallons as against 52.9 million in the previous month and 75.6 million gallons in the comparable month one year ago. Output in the first seven months of the year totaled 434.1 million gallons compared to 594.1 million in the like period last year.

Sales during August were 25.9 million gallons as against 26.4 million in the month previous and 39.7 million in August of last year. Total sales in the first seven months of the year amounted to 199.1 million gallons as against 303.9 million in the corresponding period last year.

End of month stocks were 29 million gallons at the close of August as compared to 30 million in the month previous and 32.7 million gallons in the comparable month one year ago.

Creosote—Other tar distillers were going along with the advances slated for the end of the month, as announced by a major producer two weeks ago.

After October 30, the price of straight creosote oil will be 24c. per gallon in tankcars, an increase of 4c. Creosote solutions will also be raised on a basis of 24c. per gallon for creosote and 17c. per gallon for coaltar for solutions. On this basis, an 80-20% solution would list at 22.6c. per gallon.

Cresylic Acid—Market was steady at prevailing levels. Sources reported a better tone in these markets. Use in resins has shown some improvement after consumers cut back sharply on inventories at the close of last year and during most of this year. Withdrawals for use in TCP outlets remained listless, it was said.

Naphthalene — Market was unchanged from last report. Consumers continued to keep a wary eye on the phthalic anhydride market. Price developments in the latter market would bring strong pressure for an adjustment in naphthalene prices, it was said.

Phenol—Prices were unchanged from levels long in effect in the trade. Sources

Aromatics Foreign Trade: July

Following statistics are compiled from Census bureau reports. Units used by the bureau are retained in all cases. Attention is called to the fact that exports of toluene are reported in pounds while imports of ADF cresylic acid and cresols are in gallons. Imports of dutiable cresols and cresylic acid are listed in pounds.

		July 1958	*July* 1957	*First Seven Months* 1958	*First Seven Months* 1957
EXPORTS					
Benzene	gals.	738,667	28,817	3,752,918	1,288,875
Coaltar, crude and refined	gals.	30,016	39,196	257,270	3,096,801
Creosote or dead oil	gals.	17,260	527,299	329,857	1,572,809
Cresols and cresylic acids	lbs.	1,153,270	732,712	4,717,637	4,205,954
Phenol	lbs.	4,715,315	1,337,275	20,214,904	11,597,561
Phthalic anhydride	lbs.	3,454,080	4,103,280	12,431,448	8,478,570
Pitch, from coaltar	lonb tons	3,361	2,827	39,187	24,850
Toluene	lbs.	887,553	29,797,684	75,346,120	96,375,032
IMPORTS					
Benzene	gals.	8,897,025	3,242,287	28,891,268	34,544,808
Creosote and dead oil	gals.	4,459,492	5,928,391	15,964,846	18,963,211
Cresols and cresylic acid, ADF	gals.	250,378	140,945	735,403	1,355,319
Dutiable	lbs.	3,103	900	107,937	119,065
Naphthalene, melting point less than 79° C.	lbs.	3,520,422	6,066,585	37,890,514	46,300,706
Melting point 79° C and over	lbs.	66,138	101,246	879,259	226,571

Coal Chemicals

continued to report an improvement in volume of phenol being moved to resin outlets. Although production is off from last year's levels, it was felt that demand has been fairly well sustained over the recession period. Overcapacity has made the market sharply competitive, but prices are well maintained, it was said.

Toluene—This market, and solvent markets in general, continued to show added strength last week. Sources said the upswing had gathered momentum, although the extent of the upswing was felt to hinge largely on future developments in the automotive industry.

Settlement of labor troubles in Detroit and expected increases in the production of new model cars was the basis for considerable optimism on the part of solvent producers. Added to this, was the fact that a large volume of petroleum toluene has been taken off the market by consumption in aviation gasoline during the past two months.

However, steel rates were moving up, meaning a greater volume of light oils being produced by cokeovens.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending October 12, was as follows:

Ammonium liquor	lbs.	566,641
Ammonium sulfate	lbs.	31,064,562
Benzene	gals.	3,072,457
Coaltar	gals.	14,896,383
Crude chemical oil	gals.	390,353
Solvent naphtha, crude, heavy solvent	gals.	100,736
Toluene	gals.	654,786
Xylene	gals.	188,880

Xylene — Cokeoven sources said the market continued to show improvement last week. As to whether the upswing could be expected to continue for the balance of the year, trade sources said that a great deal depends on consumer acceptance of new car models. For the time being, there was a distinctly better tone to aromatic solvents markets. Price was unchanged and steady at previously reported levels.

Intermediates

Monochlorobenzene—Demand for use in pesticides was well maintained over the summer, it was said, and current withdrawals were continuing at a good rate. Price is steady and unchanged from levels in effect in the trade for over a year.

Production in the first half of the year amounted to 190 million pounds as against 192 million in the comparable period of 1957, according to report of the Tariff Commission.

Price in tankcar quantity was 8¾c. per pound, while carload in drums was 10½c. per pound and less carlot quantities in drums were 12½c. pe pound.

Phthalic Anhydride — Major producers quoted price unchanged at 21c. per pound for flake material, in bags, carlot quantity.

Settlement of labor problems in Detroit and stepped up production of new model cars were expected to further the already noted improvement in this market. Demand for phthalic anhydride for

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ROLLED STEEL FLOOR PLATE		MINE PRODUCTS *Iron ore concentrates Iron powder Crushed stone Sand*	PENCO METAL PRODUCTS DIVISION *Steel cabinets, lockers & shelving*
A. W. ALGRIP *abrasive*			
A. W. SUPER-DIAMOND *pattern*			

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Coal Chemicals

use in plasticizers has been holding at good levels, although shading on the phthalates by marginal producers is still common, it was said.

Buying was for nearby need, according to most reports.

Rubber Chemicals—Report of the Census bureau indicated exports of rubber accelerators during the month of July amounted to 247,827 pounds as compared to 354,246 pounds in the previous month, while export of antioxidants totaled 608,716 and 794,449 pounds respectively. July exports of other rubber compounding agents amounted to 213,415 pounds as compared with 188,232 pounds in the previous month.

Styrene Monomer—Movement to synthetic rubber outlets has continued to show improvement, it was said. During the past two months, rubber companies have had to consider normal requirements for production of replacement tires as well as added demands made by auto makers for new equipment on the new model cars. The settlement of labor difficulties and a subsequent buildup in auto production at Detroit was expected to help further the improvement during the last quarter.

Fertilizer, Pesticide Funds Allotted by ICA to Korea

Korea was granted an allotment of $30 million of federal funds for purchase of fertilizers from world-wide sources last week by the International Cooperation Administration.

The money was divided as follows: $23 million for nitrogenous fertilizers to be purchased under authorization No. 89-230-99-Pl-9004, and $7 million for phosphate fertilizers to be purchased under authorization No. 89-235-99-Pl-9005.

ICA also authorized the purchase of $700,000 of agricultural pesticides from world sources. The final delivery period is June 30, 1959, for both the fertilizers and the pesticides.

Cobalt, Tungsten

—Continued from page 8

eaving, and ultimate loss to the nation of this resource.

"It is our belief," Mr. Weaver said, "that there can be no doubt as to the present threat to the national security, for the United States must be prepared for (a) intensification of economic and political warfare, (b) limited war, and (c) general war, and, insofar as domestic cobalt mining is concerned, the only operations currently going—of which ours is the largest—are dependent on some form of government umbrella.

"When this is removed, they will have to close down and, indeed, in the case of our operation we have already begun to close down in order to properly protect our assets," Mr. Weaver concluded.

Stauffer, E. Merck

—Continued from page 3

and development experience in the field of pharmaceuticals and fine chemicals with the talents of one of the leading chemical producers in the United States," according to Dr. Merck.

The firm of E. Merck-Darmstadt is one of the oldest in the chemical-pharmaceutical industry, tracing its origin to a pharmacy founded in 1654 in Darmstadt. The main plant and research laboratories are still located in that city. E. Merck manufactures a wide range of medicinal products and fine chemicals for the European and international markets.

Stauffer Chemical Company produces a diversified line of industrial and agricultural chemicals in fifty-one plants throughout the United States.

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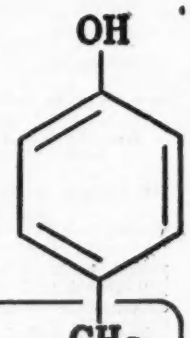

Typical Analysis

Purity	98+%
Freezing point	33.5°C.
Moisture	0.15%
Color of melt at 40°C.	1 Hellige
Specific gravity at 20/20°C.	1.035
Weight per gallon at 20°C.	8.6 lb.
Form	low-melting crystalline solid
Odor	phenolic and not sulfurous

Sales Information

Para-cresol is shipped from Gibbstown, N. J. and Hattiesburg, Miss. in tank cars and 55-gallon drums.

Oxychemicals Division, Naval Stores Department

HERCULES POWDER COMPANY INCORPORATED

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H057-7

Naval Stores Breakfast To Hear Trade Speakers

Herbert H. Wendel, manager of Pine Chemicals Division of Hercules Powder Company, Wilmington, Del., will be one of four guest speakers at a naval stores breakfast to be held during the annual meeting of the National Paint, Varnish & Lacquer Association October 28 at the Shoreham hotel, Washington, D.C. Mr. Wendel will speak on steam distilled wood products.

Also speaking at the breakfast will be George W. Varn, Varn Trading Company, Jacksonville, Fla., who will cover gum rosin; R. J. Spitz, president of Pulp Chemicals Association, and vice-president of Newport Industries Company, who will speak on tall oil and its various components, and H. L. Meyer, Chematar Pine Products Corporation, who will speak on the foreign naval stores position and its effect on our industry.

Additives Industry

—Continued from page 3

tends, "it confuses, disturbs and frightens."

He would have the bread label report simply that "a safe ingredient has been added to retard mold." The baker, of course, would have to register the specific inhibitor employed with FDA.

It's not necessary for the public to know, he maintains, which chemical has been used. All it need be told is that a mold inhibitor has been added to the bread and that it is safe.

Though FDA is known to be eager for industry to take the initiative on additives nomenclature, it is another question whether the agency would be willing to go along with Dr. Oser's idea.

An FDA spokesman indicated to OPD last week that the agency would be agreeable to a label carrying both the common name and the trade name of a food additive. But that's as far as he would go.

Dr. Oser said that he isn't sure whether the task group will decide to handle the naming job itself or go to an outside organization.

The pesticides industry, for instance, has a working arrangement with the American Standards Association on nomenclature. Under the pact, any pesticides maker can apply to ASA for a common name when the question arises.

Queried by OPD, National Agricultural Chemicals Association reported that this set-up has been in operation for about a year, and that a dozen names or so have been chosen this way.

However, NACA emphasized that its name-selection program is purely voluntary and that it would look with disfavor on any government pressure.

Whether this was an oblique reference to last month's speech before ACS by George Larrick, FDA chief (OPD, 9/15/58), is not clear. In calling for an additives nomenclature system, Mr. Larrick indicated what he had in mind:

"For many years the drug industry has been devising short, simple names which are adopted by common consent as the common name by which the drug shall be called.

"For example, the drug '3-chloro-7-methoxy-9- (1-methyl-4-diethyl amino) acridine dihydrochloride' is known simply as quinacrine hydrochloride."

Tung Oil Ass'n Re-Elects Ballard, Gives Him Plaque

Marshall Ballard, jr., has been re-elected president of the American Tung Oil Association. At last week's silver anniversary meeting in Biloxi, Miss., Mr. Ballard also received the association's plaque for "Man of the Year in Tung."

Serving with Mr. Ballard are: vice-presidents, O. A. Rosborough, jr., Marianna, Fla.; L. O. Crosby, jr., Picayune, Miss., and C. W. Goodyear, jr., Bogalusa, La. Roland R. Becke is executive secretary.

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30 dms, Leading Forwarders, Casablanca
40 dms, United International Corp, Casablanca
70 dms, Casablanca
ALOE—35 cs, P H Petry, Aruba
AMBERGRIS—1 cs, Charabot & Co, Marseille
AMMONIUM CHLORIDE—220 bgs, Rotterdam
AMYRIS OIL—1 dm, George Uhe Co, Miragoane
4 dms, Miragoane
ANILINE DYES—55 dms, Putnam Chemical Corp, Hamburg
32 dms, Hensel Bruckmann & Lorbacher, Bremen
10 dms, L & R Organic Products, Rotterdam
14 dms, Heemsoth Kerner, Liverpool
22 dms, Carbic Color & Chemical Co, Rotterdam
8 dms, Geigy Chemical Corp, Havre
48 dms, Geigy Chemical Corp, Bremerhaven
145 dms, Hensel Bruckmann & Lorbacher, Hamburg
5 cks, Francolor Inc, Havre
40 dms, Rotterdam
ANNATTO SEED—210 bgs, Marcel Calvet, Callao
65 bgs, Irving Trust Co, Callao
238 bgs, First National Chicago, Callao
100 bgs, Manufacturers Trust Co, Guayaquil
63 bgs, Callao
ANTIMONY—[illegible] kgs, Watson Geach, Liverpool
172 cs, Antwerp
ANTIMONY OXIDE—400 bgs, National Lead Co, Liverpool
ANTIMONY REGULUS—100 cs, C Gitlan, Antwerp
ARABIC GUM—950 bgs, Morningstar Paisley Inc, Port Sudan
250 bgs, Meer Corp, Port Sudan
250 bgs, Colony Import & Export Corp, Port Sudan
150 bgs, Manufacturers Trust Co, Port Sudan
135 bgs, American Smelting & Refining Co, London
ARECA NUTS—133 bgs, Prentiss Drug & Chemical Co, Colombo
ARSENIC, WHITE—88 bbls, American Smelting & Refining Co, Tampico
ASCORBIC ACID—10 dms, Mitsubishi International Corp, Yokohama
BARIUM PEROXIDE—7 dms, E I duPont de Nemours & Co, London
BEESWAX—50 bgs, Machado & Co, Ciudad Trujillo
51 bgs, Puerto Plata
30 bgs, Ciudad Trujillo
BENZAMIDE—127 dms, Chemagro Corp, Rotterdam
BENZOIN GUM—30 bdls, Norwalk Mills, Singapore
79 bdls, Meer Corp, Singapore
17 cs, Bangkok
BISMUTH—169 cs, Cerrode Pasco Corp, Callao
BLANC FIXE—400 bgs, Rotterdam
BLEACHING POWDER—100 dms, Chemical Manufacturing Co, Liverpool
BOIS DE ROSE OIL—5 dms, Hollander Trading Corp, Callao
11 dms, Lo Curto & Funk, Callao
BRONZE POWDER—25 dms, Allied Manufacturing Co, Hamburg
20 dms, Acme Bronze Powder Co, Bremen
CAFFEINE—16 dms, Byron Chemical Co, Marseille
CALCIUM CARBONATE—200 bgs, J T Baker Chemical Co, London
1,600 bgs, N H Weitzner, Antwerp
600 bgs, Pluess Staufer, Antwerp
CALCIUM GLUCONATE—2 cs, Chemo Puro Manufacturing Co, Bombay
CALCIUM PHOSPHATE, DIBASIC—1,754 bgs, National City Bank, Antwerp
CAMPHOR OIL—10 dms, George Lueders & Co, Keelung
CANDELILLA WAX—313 bgs, Tampico
CARAWAY SEED—150 bgs, Levy & Levis Co, Rotterdam
100 bgs, Joel Bieler, Rotterdam
100 bgs, Foreign & Domestic Sales Corp, Rotterdam
200 bgs, Louis Furth, Rotterdam
100 bgs, Rotterdam
CARBON—30 dms, American Cyanamid Co, Bremen
CASEIN—3,200 bgs, A J Mills & Co, Auckland
3,436 bgs, A J Mills & Co, Wellington
375 bgs, Hamburg
CASSIA—150 bgs, M J Golombeck, Singapore
279 bls, A G Dunn, Tandjong Priok
749 bls, Catz American Co, Singapore
1,071 bls, Singapore
249 bls, Saigon
CASTOR BEANS—5,082 bgs, Baker Castor Oil Co, Salvador
CELERY SEED—130 bgs, C Czarinkow, Bombay
CHARCOAL, BONE—209 bgs, Riches Nelson, Rotterdam
CHESTNUT EXTRACT—700 bgs, Bordeaux
CHINA CLAY—2,240 bgs, English China Clay Sales Corp, Avonmouth
CHLOROSULFONIC ACID—5 dms, Byron Chemical Co, Rotterdam
CINNAMON QUILLS—50 bls, Curacao Trading Co, Colombo
CITRONELLA OIL—25 dms, Essential Oils Inc, Hong Kong
25 dms, Chase Manhattan Bank, Hong Kong
50 dms, Fleuroma Inc, Hong Kong
25 dms, Lo Curto & Funk, Hong Kong
25 dms, Van Ameringen Haebler, Hong Kong
100 dms, Hong Kong
COCHINEAL—56 bgs, Irving Trust Co, Cadiz
29 bgs, H H Pike & Co, London
COCONUT OIL—700 tons, American Trust Co, Cebu
1,000 tons, E F Drew & Co, Cebu
CODLIVER OIL—30 dms, Arisia Oil Products Co, Aalesund
1,308 dms, National City Bank, Lexioes
COPAL GUM—126 bgs, Archer Daniels Midland Co, Singapore
CORIANDER SEED—300 bgs, M J Golombeck, Casablanca
CORN STARCH—500 bgs, American Key Products, Antwerp
100 bgs, Antwerp
m-CRESOL—3 dms, H A Gogarty, Liverpool
CRESYLIC ACID—5 dms, Tar Residuals Inc, Hamburg
118 dms, Van Oppen & Co, Avonmouth
CYCLOHEXANONE—10 dms, Baird Chemical Co, London
DAMIANA LEAVES—40 bgs, Tampico
DAMMAR GUM—140 bgs, O G Innes Corp, Singapore
DEXTRIN—600 bgs, Rotterdam
DILL SEED—100 bgs, Levy & Levis Co, Bombay
87 bgs, M J Golombeck, Bombay
DYES, COALTAR—22 dms, Orlex Dyes & Chemical Corp, Bremen
24 dms, Hensel Bruckmann & Lorbacher, Hamburg
EARTH COLORS—1,500 bgs, Naftone Inc, Bremen
600 bgs, Rotterdam
ETHYL ORTHOFORMATE—10 cks, Havre
FISHLIVER OIL—9 dms, Mitsubishi International Corp, Yokohama
3 dms, Arista Oil Products Co, Yokohama
GELATIN—100 bgs, G G Lippelgoes, Liverpool
100 bgs, Chase Manhattan Bank, Hamburg
400 bgs, Aries Co, Havre
300 bgs, Transatlantic Animal By Products Corp, Rotterdam
10 dms, Hensel Bruckmann & Lorbacher, Rotterdam
800 bgs, B Young & Co, London
GLUE—100 bgs, Jung Forwarding Co, Liverpool
1,000 bgs, First National Boston, Hamburg
900 bgs, First National Boston, Rotterdam
230 bgs, Jung Forwarding Co, Avonmouth
GLUE STOCK—414 bls, A M Goldstein, Barranquilla
GRAPHITE—250 bgs, Superior Graphite Co, Colombo
GREASE—55 cs, Otto Roth, Bremen
GUANIDINE CARBONATE—35 dms, Rotterdam
GUAR GUM—100 bgs, Duche Uni Gum Corp, Rotterdam
200 bgs, Morningstar Paisley Inc, Genoa
GYPSUM—360 bgs, Whittaker Clark & Daniels, Liverpool
GYPSUM, CRUDE—10,287 tons, U S Gypsum Co, Little Narrows
10,314 tons, U S Gypsum Co, Hantsport
3,430 tons, National Gypsum Co, Walton
HEMATOXYLIN—2 dms, J E Bernard, Liverpool
INDIGO—192 dms, Putnam Chemical Corp, Hamburg
IODINE, CRUDE—176 kgs, Antony Gibbs & Co, Tocopilla
IRON BLUE—55 dms, Van Oppen & Co, Liverpool
IRON POWDER—27 dms, Hensel Bruckmann & Lorbacher, Rotterdam
KARAYA GUM—194 bgs, Colony Import & Export Corp, Bombay
199 bgs, Block Drug Co, Bombay
61 bgs, Meer Corp, Bombay
255 bgs, Morningstar Paisley Inc, Bombay
81 bgs, National City Bank, Bombay
41 bgs, S B Penick & Co, Bombay
488 bgs, Steinhall & Co, Bombay
LAVENDER OIL—5 dms, Ungerer & Co, Marseille
LAVENDER OIL, SPIKE—5 dms, L A Champon & Co, Barcelona
LEMON OIL—2 dms, National City Bank, Vera Cruz
127 dms, Lo Curto & Funk, Vera Cruz
2 dms, Ungerer & Co, Vera Cruz
LEMONGRASS OIL—12 dms, George Lueders & Co, Cochin
30 dms, Van Ameringen Haebler, Cochin
12 dms, East Asiatic Co, Cochin
LIME OIL—1 dm, Citrus & Allied Essential Oils Co, Puerto Plata
4 dms, L A Champon & Co, Port Au Prince
LOCUST BEAN GUM—250 bgs, P A Dunkel, Rotterdam
LOGWOOD EXTRACT—163 cks, American Dyewood Co, Kingston
MAGNESIUM CARBONATE—1,200 bgs, Rebeis Co, Liverpool
MANNA—22 cs, Lo Curto & Funk, Palermo
MENTHOL—10 cks, Henley & Co, Hamburg
15 cs, Manufacturers Trust Co, Kaohsiung
65 cs, P A Dunkel, Santos
50 cs, Daiichi Bussan Kaisha, Santos
25 dms, Marseille
MINT OIL—5 dms, George Lueders & Co, Casablanca
MOLASSES—1,881 tons, Industrial Molasses Co, Rotterdam
1,134 tons, Industrial Molasses Co, Hamburg
MONOSODIUM GLUTAMATE—200 dms, Ajinomoto Co, Yokohama
MONTAN WAX—139 bgs, Dura Commodities Corp, Hamburg
56 bgs, Cornelius Wax Refining, Hamburg
30 bgs, Cornelius Wax Refining, Rotterdam
MYROBALANS—525 bgs, Hammond & Carpenter, Bombay
6,150 bgs, Hammond & Carpenter, Visakhapatnam
NAPHTHENIC ACID—1,796 bbls, Esso Standard Oil Co, Aruba
NAPHTHOL—2 dms, Hensel Bruckmann & Lorbacher, Hamburg
NICOTINE SULFATE—4 dms, Conray Products Co, Rotterdam
20 dms, Baird Chemical Corp, Genoa
NIGER SEED—136 bgs, S Davis Co, Bombay
NUTMEG—203 bgs, Karl H Landes & E Balint, Singapore
91 bgs, P H Petry, Hamburg
24 bgs, Rotterdam
OLIVE OIL—75 dms, Mawer Gulden Annis, Marseille
50 dms, First National Boston, Barcelona
50 dms, Swiss Credit Bank, Barcelona
100 dms, Uddo & Taormina Co, Palermo
27 dms, Asaro Bros, Palermo
25 dms, Chase Manhattan Bank, Marseille
6 dms, Harris Trust Co, Pireaus
53 dms, B Filippone & Co, Piraeus
50 dms, Old Monk Olive Oil Co, Marseille
15 dms, Wm Keller, Marseille
101 dms, J H Schroder, Barcelona
257 dms, Cadiz
331 dms, Malaga
OCOTEA CYMBARUM OIL—45 dms, Lo Curto & Funk, Itajai
OPIUM—125 cs, N Y Quinine & Chemical Works, Istanbul
ORANGE OIL—1 dm, Citrus & Allied Essential Oils Co, Puerto Plata
ORRIS ROOT—72 bgs, H Marmorek & Son, Marseille
OURICURY WAX—111 bgs, Cornelius Wax Refining, Salvador
56 bgs, Strahl & Pitsch, Salvador
PALMAROSA OIL—3 pots, Roubechez Inc, Bombay
PALMKERNEL OIL—500 tons, E F Drew & Co, Rotterdam
PAPAIN—59 hf/chts, American Ferment Co, Colombo
86 hf/chts, Chas L Huisking & Co, Colombo
PAPRIKA—100 bgs, J Raphael & Sons, Hamburg
PATCHOULI OIL—7 cs, Kane Import Corp, Penang
16 cs, Antoine Chiris Co, Penang
20 cs, Roure-Dupont Inc, Penang
10 dms, Kane Import Corp, Singapore
10 dms, J Berlage, Penang
PECTIN—20 dms, Duche Uni-Gum Corp, Copenhagen
PEPPER, BLACK—70 bgs, W L Willner, Singapore
140 bgs, Eastern Bank, Singapore
160 bgs, A G Dunn, Colombo
120 bgs, Ludwig Mueller, Cochin
160 bgs, Mutual Spice Co, Colombo
400 bgs, East India Trading Co, Cochin
160 bgs, Mutual Spice Co, Cochin
160 bgs, Daarnhower & Co, Cochin
160 bgs, C M van Sillevoldt, Cochin
350 bgs, A G Dunn, Singapore
160 bgs, Mutual Spice Co, Colombo
420 bgs, W L Willner, Singapore
420 bgs, P H Petry, Singapore
140 bgs, Daarnhower & Co, Singapore
625 bgs, Singapore
PEPPER, RED—100 bgs, M J Golombeck, Kobe
80 bgs, M J Golombeck, Kingston
240 bgs, Otto Gerdau, Kingston
32 bgs, Fritzsche Bros, Kingston
89 bgs, Kellys America Ltd, Kingston
16 bgs, Overseas Produce Corp, Kingston
PEPPER, WHITE—280 bgs, Karl H Landes & E Balint, Singapore
280 bgs, A G Dunn, Singapore
140 bgs, Mincing Trading Corp, Singapore
70 bgs, Mutual Spice Co, Singapore
70 bgs, Internatio Rotterdam, Singapore
70 bgs, Singapore
PERCHLOROETHYLENE—200 dms, International Selling Corp, Marseille
POLLACKLIVER OIL—50 dms, National City Bank, Yokohama
POPPY SEED—200 bgs, P H Petry, Copenhagen
50 bgs, Becker Mayer Seed Co, Copenhagen
350 bgs, Rotterdam
POTASSIUM CHLORATE—1 dm, C Hardy, Havre
POTASSIUM FERROCYANIDE—123 dms, Hamburg
POTASSIUM METABISULFITE—35 dms, A Gusmer, Liverpool
POTASSIUM PERCHLORATE—100 dms, C Hardy, Havre
PSYLLIUM SEED, HUSKS—236 bgs, Meer Corp, Bombay
PYRIDINE—10 dms, Van Oppen & Co, Liverpool
PYRITES—311 cks, American Metal Climax, Leixoes
QUEBRACHO EXTRACT—4,166 bgs, Buenos Aires
QUINIDINE SULFATE—6 dms, Hamburg
ROSEMARY LEAVES—100 bls, Meer Corp, Lisbon
ROSEMARY OIL—11 dms, L A Champon & Co, Barcelona
SAGO FLOUR—557 bgs, Manhattan Adhesives Corp, Singapore
SANDALWOOD CHIPS—40 bgs, S B Penick & Co, Bombay
SANDALWOOD OIL—5 cs, George Uhe Co, Cochin
SEEDLAC—400 bgs, Wm Zinsser & Co, Calcutta
300 bgs, Gillespie Rogers Pyatt, Calcutta
250 bgs, Mantrose Corp, Bangkok
699 bgs, H C Smith, Calcutta
100 bgs, Mac Lac Co, Calcutta
SENNA LEAVES—100 bls, Meer Corp, Tuticorin
SESAME OIL—82 dms, I R Boody & Co, Copenhagen
SESAME SEED—300 bgs, Ideal Trading Co, Puerto Barrios
448 bgs, Alexandria
SHELLAC—227 bgs, I Levine, Hamburg
SOAP BARK—317 bls, S B Penick & Co, San Antonio
SODIUM BENZOATE—39 dms, M Dub Co, Hamburg
SODIUM BICARBONATE—16 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CACODYLATE—3 cs, Havre
SODIUM CYANIDE—280 dms, American Cyanamid Co, Liverpool
250 dms, Chemical Manufacturing Co, Liverpool
SODIUM PERBORATE—400 bgs, Leghorn
SODIUM PERBORATE TETRAHYDRATE—1,800 bgs, Chemical Manufacturing Co, Liverpool
SPERM OIL—282 tons, Pisco
TALC—375 bgs, L A Salomon & Bro, Bordeaux
800 bgs, Whittaker Clark & Daniels, Bordeaux
800 bgs, C B Chrystal Co, Bordeaux
1,850 bgs, Charles Mathieu, Genoa
460 bgs, C B Chrystal Co, Bombay
TAPIOCA FLOUR—2,420 bgs, Harry F R Dolan Jr, Bangkok
6,344 bgs, Stein Hall & Co, Kohsichang
2,000 bgs, Stein Hall & Co, Itajai
720 bgs, Poons Co, Itajai
1,083 bgs, Manhattan Adhesives Corp, Itajai
1,103 bgs, Guaranty Trust Co, Itajai
2,000 bgs, Morningstar Paisley Inc, Itajai
600 bgs, Manhattan Adhesives Corp, Penang
1,334 bgs, Bangkok
1,140 bgs, Kohsichang
TARTARIC ACID—2,000 bbls, Barcelona
THYME LEAVES—60 bls, Louis Furth, Marseille
300 bgs, Seek & Kade, Marseille
TITANIUM DIOXIDE—363 bgs, Marubeni Iida Co, Kobe
TRAGACANTH GUM—80 bgs, Hamburg
TRICHLOROETHYLENE—100 dms, Chemical Manufacturing Co, Liverpool
ULTRAMARINE BLUE—100 bgs, Whittaker Clark & Daniels, Avonmouth
UREA—500 bgs, Gehrig Hoban, Brevik
625 bgs, Mohegan International Inc, Hamburg
UREA, SYNTHETIC—3,992 bgs, Chemical Manufacturing Co, Liverpool
VANILLA BEANS—10 cs, F Huber & Co, Tandjong Priok
10 dms, Foster T Smith, Yokohama
10 dms, Byron Chemical Co, Yokohama
WOOL GREASE—107 dms, N I Malmstrom, Bremen
50 dms, Hummel Lanolin Corp, Bremen
105 dms, N I Malmstrom, Nagoya
3 dms, Eelsingh & Lugtigheid, Rotterdam
YLANG YLANG OIL—2 djms, Noville Essential Oil Co, Manila

Los Angeles

AMBER OIL—2 cs, Laco Trading Co, Rotterdam
ANNATTO SEED—112 bgs, Maritime Trading Co, Recife
ANTIMONY REGULUS—10 cs, C Gitlan, Antwerp
ARABIC GUM—300 bgs, Hathaway Allied Products, Genoa
ASCORBIC ACID—10 dms, Air Express, Yokohama
CARAWAY SEED—200 bgs, R J Spitz, Rotterdam
CARNAUBA WAX—112 bgs, Frank B Ross, Fortaleza
56 bgs, National City Bank, Fortaleza
CASEIN—2,000 bgs, Borden Chemical Co, Buenos Aires
200 bgs, Pacific National Bank, Rotterdam
CASSIA—167 bls, Saigon
CELERY SEED—87 bgs, A G Dunn, Bombay
88 bgs, C Czarinkow, Bombay
CHINA CLAY—1,999 bgs, Papermakers Importing Co, Rotterdam
CINNAMON QUILLS—39 bls, Hismoco American Co, Colombo
30 bls, McClintock Stern & Co, Colombo
COPRA—1,600 tons, American Trust Co, Cebu
500 tons, Paul X Smith, Iloilo
1,000 tons, American Trust Co, Dumaguete
500 tons, American Trust Co, Tabaco
COPRA CAKE—6,720 bgs, Pacific Vegetable Oil Corp, Manila
2,240 bgs, Cargill Inc, Manila
2,000 bgs, Balfour Guthrie, Manila
2,000 bgs, Balfour Guthrie, Cebu
4,480 bgs, Pacific Vegetable Oil Corp, Iloilo
3,360 bgs, Wilbur Ellis Co, Manila
DEXTRIN—30 bgs, Stein Hall & Co, Rotterdam
EARTH COLORS—200 bgs, American Chemical & Pigment Corp, Bremen
600 bgs, Naftone Inc, Bremen
FORMIC ACID—60 dms, I M Sobin Co, Amsterdam
IRON BLUE—21 dms, Van Oppen & Co, Liverpool
KARAYA GUM—126 bgs, Hathaway Allied Products, Bombay
LOCUST BEAN GUM—300 bgs, Hathaway Allied Products, Genoa
50 kgs, Nehls & O'Connell, Genoa
MOLASSES—662,070 gals, Southwestern Sugar & Molasses Co, Mazatlan
MONOSODIUM GLUTAMATE—65 cs, Ajinomoto Co, Yokohama
OLIVE OIL—25 dms, R Azria, Genoa
PEPPER, BLACK—70 bgs, Singapore
PEPPER, RED—100 bgs, Tokyo Food Products, Yokohama
QUEBRACHO EXTRACT—674 bgs, First National Chicago, Buenos Aires
STARCH—600 bgs, Bohemia Biscuit Co, Bremen
SUNFLOWER OIL—127 dms, Pacific Vegetable Oil Corp, Rotterdam
TAPIOCA FLOUR—1,120 bgs, Stein Hall & Co, Kohsichang

Philadelphia

AMMONIUM CHLORIDE—400 bgs, I M Sobin Co, Rotterdam
ANTIMONY OXIDE—200 bgs, Chas Kurz & Co, Rotterdam
400 bgs, Middlesbrough
400 bgs, Hull
ANTIMONY REGULUS—94 cs, Rijeka
ASBESTOS FIBER—1,749 bgs, Chas Kurz & Co, Lourenco Marques
160 bgs, Lourenco Marques
BEESWAX—100 bgs, Rio de Janeiro
BONEMEAL—632 bgs, Transatlantic Animal By Products Corp, Buenos Aires
CALCIUM CARBONATE—1,598 bgs, Hammill & Gillespie, London
1,600 bgs, Antwerp
CHESTNUT EXTRACT—400 bgs, Bordeaux
CRYOLITE—4,250 tons, Pennsalt Corp, Ivigtut
FISHLIVER OIL—50 dms, J H Faunce, Yokohama
FLUOROSPAR—2,227 tons, Vera Cruz
GYPSUM, CRUDE—7,776 tons, U S Gypsum Co, Little Narrows
LICORICE ROOT—6,821 bls, McAndrews & Forbes, Leningrad
MAGNESITE—908 tons, Split
NAPHTHALENE—1,213 bgs, Gallard Schlesinger, Antwerp
OLIVE OIL—53 dms, Manufacturers Trust Co, Tarragona
POPPY SEED—400 bgs, Seastell Co, Copenhagen
PYRIDINE—27 dms, Bankers Trust Co, Havre
SHELLAC—100 bgs, Brown Bros, Bremen
100 bgs, F H Paul & Stein Bros, Rotterdam
SODIUM CYANIDE—250 dms, Middlesbrough
TRICHLOROETHYLENE—140 dms, Gothenburg
UREA—2,000 bgs, Middlesbrough

San Francisco

CALCIUM CHLORIDE—1,000 bgs, Bank of California, Antwerp
COPRA—500 tons, American Trust Co, Cebu
500 tons, Cargill Inc, Cebu
500 tons, Cargill Inc, Quinabigan
500 tons, Procter & Gamble Co, Jagna
500 tons, Cargill Inc, Siain
500 tons, Cargill Inc, Legaspi
500 tons, Cargill Inc, Tabaco
500 tons, Cargill Inc, Masbate
COPRA CAKE—6,000 bgs, Berger & Piate, Cebu
CREAM OF TARTAR—20 bgs, Nylos Trading Co, Genoa
FERROUS SULFATE—1,250 bgs, D M Hicks, Kobe
FISHMEAL—1,317 bgs, Wilbur Ellis Co, Paita
1,087 bgs, Albumina Supply Co, Antofagasta
4,000 bgs, Balfour Guthrie, Chimbote
4,000 bgs, Balfour Guthrie, Talcahuano
2,174 bgs, Wilbur Ellis Co, Chimbote
2,174 bgs, Callao
LOCUST BEAN GUM—100 bgs, Hathaway Allied Products, Genoa
OLIVE OIL—50 dms, Veronica Olive Oil Co, Marseille
100 dms, A Giuriani & Bro, Genoa
48 dms, Monteverde & Parodi, Genoa
PEATMOSS—205 bls, Nurserymens Exchange, Bremen
PEPPER, WHITE—14 bgs, Internatio Rotterdam, Singapore
PETROLEUM, CRUDE—30,677 tons, Standard Oil Co, Sungai Pakning
204,551 bbls, Standard Oil Co, Sungai Pakning
41,033 tons, Tidewater Oil Co, Mena Al Ahmadi
261,979 bbls, Tidewater Oil Co, Sungai Pakning
SAGO FLOUR—160 bgs, Arabol Manufacturing Co, Singapore
SODIUM BICARBONATE—250 bgs, C M C Chemicals Inc, Manchester
SODIUM BIFLUORIDE—400 bgs, D M Hicks, Kobe
SODIUM FERRO CYANIDE—100 bgs, Barth Knecht Heiman Co, Antwerp
SODIUM SILICOFLUORIDE—302 bgs, D M Hicks, Kobe
240 bgs, H Sundheimer, Hamburg
TARTARIC ACID—60 bgs, Nylos Trading Co, Genoa

Agricultural Chemicals

Phosphate rock prices, which declined 10 cents per long ton in mid-September simultaneously with the 20 cents per barrel drop in the price of fuel oil, made a rapid about-face recently. Producers, due to the October 1 rise in labor costs, from $1.47 to $1.52, have upped postings 15 cents, establishing 70-72 percent material at $6.21 per long ton, bulk, carlots, on a mines basis. Other grades were also advanced a uniform 15 cents per long ton over mid-September prices (or a net advance of 5 cents over prices firmly held since March).

Other than the changes in phosphate rock, recent price activity has been confined to the animal proteins market. Of particular note, were increases amounting to $7 per ton in the prices asked and received for fishmeal and fishscrap. The rather spectacular advances were the result of very limited supplies coupled with fairly heavy demand as buyers, realizing that the fishing season on the Atlantic coast is about to close, made haste to obtain requisite supplies. Tight inventories, a trade spokesman mentioned, were the result of a very poor fishing season—catches from Maine to New Jersey ran about 25 percent less than those of the previous year and on the Gulf coast, were also considerably below normal.

A return to buying on the part of animal feed formulators upped the price of dried blood and tankage 25 cents per unit ton at the Chicago market last week. New York listings were unaffected though the sudden cold spell did prompt more substantial movement of these same materials, a dealer mentioned.

For nitrogen materials, October promises to be a rather dull month. None in the trade are concerned. For it'll take that long for ammonium nitrate producers, among others, to add up sales revenues for September, a whopping good month, according to all reports. Credit was given to the liberal discounts, primarily, but sources said the improvement in the financial situation of the farmer was an unestimable factor.

Price Trends

Advanced

Dried blood, Chicago, 25c. per unit-ton.
Fishmeal, Atlantic coast, $7 per ton.
Fishscrap, Atlantic coast, $7 per ton.
Tankage, Chicago, 25c. per unit-ton.

Reduced

None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
110.44	109.46	108.45	112.27

For Current Prices see page 9

Animal and Plant Foods

Ammoniating Solutions—July output, as reported by the Census bureau, was 30,283 tons, down from 35,429 of June. Producers' stocks amounted to 26,887 tons at July's end compared with 19,763 of the preceding month.

Ammonium Nitrate—September to some producers of ammonium nitrate represented just about the zenith of off-season movement. The very liberal discount allowed on August-September shipments, they said, was mainly responsible. Also viewed as contributing to heavy demand was the generally improved financial situation of the farm population, and the almost universal belief that the farm bill recently passed by Congress, loosening up on acreage controls, will put more land, thus requiring more fertilizer, under cultivation next Spring.

It's likely that demand will be slow during the remainder of this month and in November, but accelerate in December when buyers, faced with a January 1 seasonal price advance, return to the marketplace.

Production of fertilizer grade ammonium nitrate climbed to 162,311 tons in July from 139,007 of June and was slightly greater than the 161,363 ton output of July, 1957. Stocks held by producing July. This was approximately 10,000 tons plants as of July 30 totaled 220,254 tons, compared with 161,670 tons on hand thirty days earlier.

Animal Proteins—The market for dried blood and tankage was awakened last week from end-of-summer slumber by increased call from animal feed mixers, who were stepping up operations in advance of a usually busy winter season. Prices responded accordingly, both materials advancing 25c., per unit ton at the Chicago market, to $7.25 (blood) and $8 (tankage). New York postings, however, were unaffected.

The very tight supply of fishmeal and fishscrap was mirrored in the almost record-high prices being paid for these materials last week—$145 per ton for meal, $141 for scrap. A dealer here explained that the fishing season on the Atlantic coast is drawing to a close and, consequently, buyers are eager to get their hands on requisite supplies.

The scarcity of Menhaden meal and scrap results from a very poor season. Production from Maine to New Jersey ran about 25 percent behind that of last year, a trade spokesman noted, and on the Gulf coast, output was also considerably below normal.

Fish and Wildlife Service reported June production, for example, amounting to 31,000 tons was a drop of 14 percent from the same month in 1957.

Dicalcium Phosphate—The market for dicalcium phosphate as a "basic" in mixed fertilizers, never large, has grown progressively smaller over recent years, replaced to a large extent by triple superphosphate. Use of the latter, it's said, has gained because it is not only a higher analysis material but also—and more important—because it costs roughly 50 percent less.

However, dicalcium phosphate still is widely used as a stock-feed component. Demand from this end-use, responding to the recent drop in the mercury, is increasing as mixers, reported to be operating plants at near-capacity levels, build up inventories to take care of normally heavy winter requirements.

In July, according to a Census bureau report, production of dicalcium phosphate rose slightly, to 18,149 tons from 17,527 of June. (The increase could be viewed as considerable when compared with July, 1957, output of 13,697 tons.) Inventories at end-of-month dropped to 6,666 tons from 8,076 tons on hand thirty days prior.

Phosphate Rock — Florida phosphate rock prices, determined by fuel oil and labor costs involved, declined 10c. per long ton in mid-September in response to a 20c. per barrel drop in fuel oil prices, from $2.57 to $2.37. Thus the quote on 70-72 percent material, for example, became at that time $6.06 per long ton, bulk, carlots, on a mines basis.

However, a 5c. rise in labor costs, October 1, has pushed prices upward again. Now that same 70-72 material is quoted at $6.21 per long ton, up 15c. from the mid-September price or a net advance of 5c. per long ton over prices on the books since last March. For quotations on other grades of phosphate rock, see Page 23.

Superphosphate — July production of superphosphate and other phosphatic fertilizers amounted to 159,919 short tons (100 percent A.P.A.), compared with July, 1957 output of 165,869 tons, the Census bureau reported. Shipments of superphosphate and other phosphatic fertilizers during the month totaled 86,511 short tons, or a decrease of 18 percent from the volume shipped during the corresponding month of last year. Stocks held by producing plants as of July 31, measured 368,519 tons, 17 percent more than those held on June 30.

Pesticides Output

Following are production statistics reported by the Tariff Commission representing the number of pounds of certain pesticides produced during June and July, 1958:

	July, 1958	June, 1958
DDT	12,722,421	12,172,548
2,4-D*	2,133,919	1,797,565
Ester & Salts	1,247,674	1,663,680
Acid equivalent	884,965	1,251,946
BHC	4,423,347	5,318,094
Gamma isomer	797,258	873,766
Tetramethylthiuram Sulfide	—	170,242
2,4,5-T	464,064	864,333

* Includes 2,4-D acid produced, separated and consumed in plant in the manufacture of its derivatives.

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*Roche Reg. U. S. Pat. Off.

Drugs, Fine Chemicals

A major producer announced reductions in the prices of cortisone and hydrocortisone, as well as declines in both USP and feed grade folic acid. For the steroids, cortisone acetate was reduced 60 cents per gram to a level of $1.90, while hydrocortisone, alcohol or acetate, was reduced 65 cents to $2.25 per gram. Prices are for kilo lots or more. Folic acid, USP, was reduced 4 cents per gram to 44 cents in kilo lots or more, while a 10 percent feed grade material, same quantity, was dropped $4 to $44 per kilo. There have been substantial reductions in all of these markets since the first of the year, partially due to competitive import pressure.

Silver bullion jumped ¾ cents per ounce at the close of the week. Sources contacted at presstime, had withdrawn quotations on silver salts. New schedules will undoubtedly be drawn up this week, it was said. A ½ cent per ounce advance in bullion, previous to this latest change, forced advances in silver cyanide and silver nitrate two weeks ago.

Aspirin and salicylate markets have shown good seasonal gains and the sales pace was expected to be stepped up in the balance of this month and next. Bromide markets were quiet. Buying for pharmaceutical accounts remains largely hand to mouth with potassium and sodium salts coming in for a major portion of sales.

No price quotations were available for publication from the newest producer of monosodium glutamate. The producer, utilizing a fermentation process for production of MSG, said that stocks were being built up and that the new plant has been producing up to specification since early in the summer. Other sources quoted price unchanged from previous report.

Price Trends

Advanced

None

Reduced

Cortisone acetate, kilo or more, 60c. per gm.
Hydrocortisone, alcohol or acetate, kilo or more, 65c. per gm.
Folic acid, USP, kilo or more, 4c. per gm. 10% feed grade, 3-kilo or more, $4 per kilo.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
62.54	62.61	62.79	63.22

For Current Prices see page 9

Aspirin — Market remains seasonally strong. Major suppliers said September had been a very good month and movement during October has been up to expectation. Price was unchanged from levels of long standing.

Census bureau noted July exports of aspirin amounting to 45,625 pounds as compared to 40,105 pounds in the previous month. In the first seven months of the year, exports of aspirin totaled 491,510 pounds.

Cortisone—Price was reduced 60c. per gram on kilo lots or more last week by a major producer. New price for cortisone acetate, kilo lots or more, was quoted at $1.90, while listing for less than a kilo was $2 per gram.

Folic Acid—USP material was dropped 4c. to a level of 44c. per gram in kilo lots or more, while less than a kilo was newly quoted at 48c. per gram. A 10 percent feed grade material was reduced $4 per kilo to $44 in 3 kilo-lots or more, while 333 grams to 2.9 kilo was quoted at $48 per kilo.

Price on USP acid has moved from 70c. per gram at the beginning of the year to the currently held 44c.

Glutamine—Synthesis of d1-glutamine has been reported by a major pharmaceutical producer. The development was said to make possible the production of the d1-form at about one-tenth the price of l-glutamine.

However, trade sources pointed out that this is strictly a research chemical. Further testing will have to determine if the racemic mixture is more or less active than the 1-form and what side reactions, if any, are present. Sources producing l-glutamine said it was currently undergoing tests to determine its effectiveness in treating chronic alcoholism, peptic ulcer and mental retardation cases.

Hydrocortisone—A major producer announced a 65c. per gram reduction in the price of hydrocortisone alcohol or acetate in kilo lots or more. This marks the third reduction in these markets this year and the fourth since October, 1957. In a year, the price has dropped from $4 per gram to the newly announced price of $2.25 per gram.

Under new schedules, hydrocortisone alcohol or acetate, kilo or more, list at $2.25 per gram, while 100 to 999 gram lots are $2.60 and 25 to 99 gram quantities are $2.90 per gram.

Iodides—Markets were quiet. Last price action in these markets was a 3c. per pound drop for potassium iodide from $1.40 per pound to $1.43, effected by major producers last month.

Monosodium Glutamate—Sources said the new plant of a domestic producer, utilizing a fermentation process on license from a Japanese firm, has been producing up to specification and stocks of monosodium glutamate were being built preparatory to entering the market. No price was available for publication on this material as yet.

The advantages of the process were felt to lie in the fact that it has already proven itself and that the raw material supply for a fermentation process is unlimited.

Other trade sources quoted price unchanged at $1.07 per pound on any quantity over 100 pounds.

Salicylates—Volume on these materials, most of which move into analgesic and antipyretic formulations, has been well sustained, according to trade information received last week. Producers have noted a seasonal firmness in these markets after demand reached a low point during the August vacation shutdown period.

July report of the Census bureau indicated exports in July of analgesic and antipyretic preparations amounted to 22,042 pounds as against 9,122 pounds in the previous month.

Tartaric Acid—July imports amounted to 196,250 pounds as against 276,677 pounds in the previous month. Total imports for the first seven months of the year were 1,290,939 pounds. Trade sources said tartrates markets were more active last month after a sales dip experienced in August. Markets had been listless for several months previous. Prices were unchanged at prevailing levels.

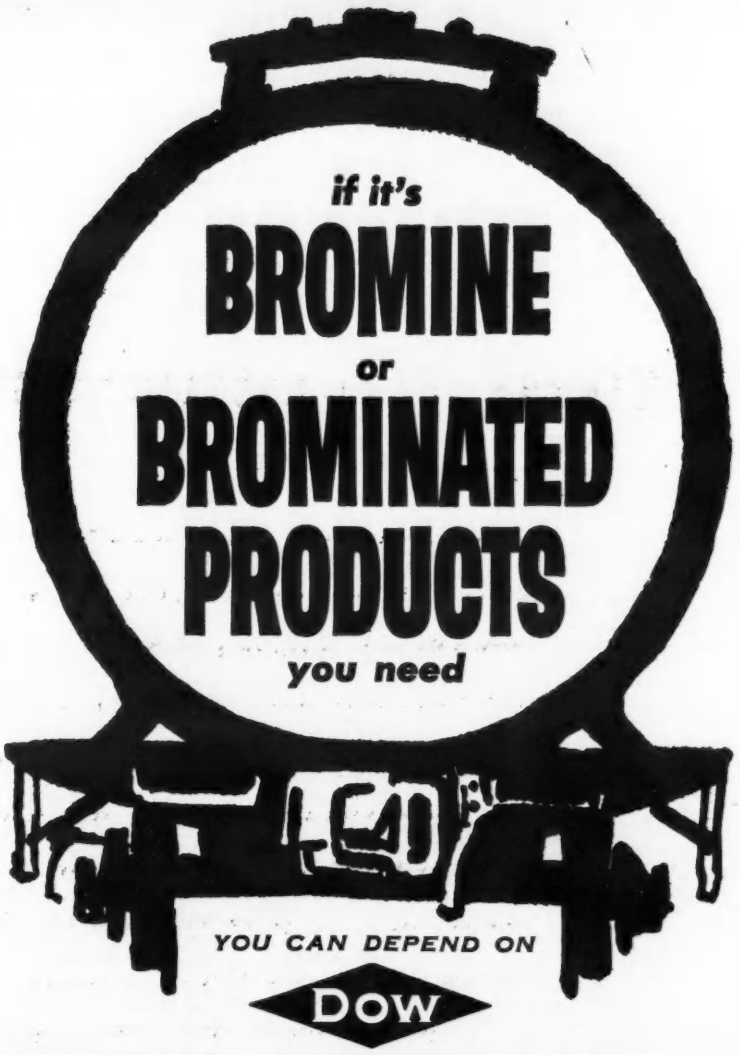
A major source for tartrates in this country announced purchase of most of the outstanding shares of an English firm engaged in manufacture of fine chemicals, including tartrates, citrates, and gluconates.

Vitamins—Producers have experienced a normal seasonal uptrend subsequent to the Labor Day holiday. However, nothing startling has been forthcoming in the way of increased sales volume, it was said. Sources said production expansions and deeper penetration of existing markets as well as alert sales promotion efforts on the part of vitamin producers have helped cut losses incurred by extensive price reductions during the past two years.

Census bureau reported export of bulk Vitamin A in July amounted to 10,412 pounds, while thiamin salts exports were 3,281 and ascorbic acid exports totaled 36,806 pounds. Export of B-complex vitamins, excluding B_1 and B_{12}, was 38,602 pounds, while exports of other vitamins during the month totaled 56,801 pounds.

Botanicals

Movement of large volume domestic botanicals to pharmaceutical outlets may have been a bit below normal during the past few weeks, but the balance of the month should see a reversal of the situation. Dealers felt that the slower demand was a result of careful inventory policies followed this year by pharmaceutical purchasing agents rather than any fall in actual consumption. Consumers who may have come in with orders early last season were holding back. On the other hand, some unexepected business has been booked



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Drugs, Fine Chemicals

this year. The overall picture was not startlingly different from last year. Volume for the year may fall a little below last year's level. However, it was pointed out that this could be said of a good many items during the recession period.

The beginning of new crop Goldenseal root was being received, but the bulk of the crop is in the process of being dug and transported to collecting stations. Senega root was firm pricewise, and sources said advances might be in the offing due to a tightening supply situation.

Cascara Segrada—Demand has been a little below normal this fall. However, sources felt it was more a matter of pharmaceutical purchasing agents keeping a careful eye on inventories than any fall in consumption. Price was quoted at 30c. per gram, unchanged from last report.

Deer Tongue Leaves—Report from Georgia, indicates a large crop of this material—the biggest in several years. One large collector in Georgia was said to have been buying about $3,000 a week and paying prices which netted the gatherers about $50 per week.

A standing order for 115,000 pounds for the account of a large distributor in the north, together with almost unlimited takings by tobacco companies who buy direct, resulted in the wanted goods being covered at prices in advance of those paid in the 1957 season.

The exceptionally large crop this year resulted from plenty of rain prevailing during the growing season from June through September. A major collector, who has factored deer tongue for the past 25 years, said he had paid 2½c. per pound when he began trading and that he has been paying 22c. this year. Others have paid more than that, it was said.

Goldenseal Root—A trickle of new crop material has come into the market, but the bulk of the crop is in process of being dug and carried to collecting stations in the Northwest. Price was quoted unchanged from last report at $4.10 per pound. Demand was at normal levels, sources said.

Senega Root—Market continued to firm, according to report of major dealers contacted last week. Demand was not particularly strong, but supply position was comparatively weak. Sources expected the price to be fully maintained at the $2.10 per pound level and possible increases were in the offing as a result of shrinking supplies.

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Goodyear Names Chairman, Other Top Level Executives

Goodyear Tire & Rubber Company has named E. J. Thomas chairman of the board of directors. He succeeds P. W. Litchfield who becomes honorary chairman of the board.

Mr. Thomas continues as the company's chief executive officer. Russell DeYoung, executive vice-president, succeeds Mr. Thomas.

In other executive moves, the company elected P. E. H. Leroy executive vice-president, and vice-chairman of the board. He continues as the company's chief financial officer, vice-president Sam DuPree moves up from coordinator of the company's general managers to vice-president of production. Richard A. Jay, assistant to the president, replaces Mr. DuPree.

Ungerer V.P. Completes Tour

William H. Dunney, jr., director of the perfume laboratories and vice-president of Ungerer & Co., New York, has completed a European survey tour. Mr. Dunney spent considerable time in the offices of Ungerer-Vidal Charvet, a subsidiary of the US firm.

Turkey Tightens

—Continued from page 4

quarter includes both ICA funds and non-ICA funds. The first allotment of ICA funds to Turkey was announced last week by ICA and included $1 million for medicinal preparations and three separate allotments totaling $4,170,000 for chemicals and chemical preparations, excluding alcohol, fertilizer and fertilizer materials, procurement from world-wide sources, synthetic rubber and toilet preparations.

Of the $4,170,000 allotted by ICA for chemical purchases, $2,470,000 was specifically earmarked for dyes, colors and pigments. The authorizations provide for with the final delivery date not later than September 30, 1959. The contracting period runs until May 31, 1959, except in the case of the medicinals, which is March 31, 1959.

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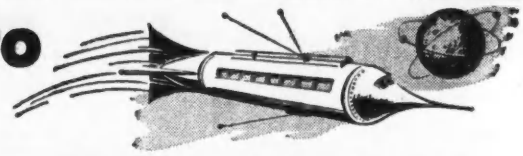

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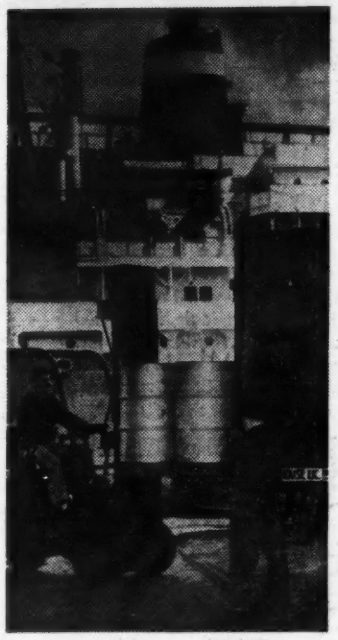

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Essential Oils, Aromatics

A fairly quiet tone dominated the essential oils market last week, it was agreed. Price shifts occurred in the form of an advance in vetiver oil, and a decline in cedarleaf oil. Haitian vetiver oil has been firming lately due to the political instability at source. The unrest, however, has not made any noticeable alterations in the shipping schedules. Cedarleaf has been a falling oil during the past month. A price drop of 25 cents took effect last week. A standard minimum of forty percent esters has been set for bergamot oil by the Italian Consortium, it was learned. Prices will probably rise in the future as a result of the higher ester content.

There was considerable activity on the aromatic chemicals market last week in the form of declines. Materials to soften included citral, citronellol, geraniol, hydroxycitronellal, b-ionone, linalool, and methyl ionone. These items generally dropped due to the soft overtones of various essential oils of which these aromatic chemicals are derivatives. The two essential oils to affect these chemicals the most were citronella and lemongrass oils. Both have been lagging markets for some time.

On the seeds and spices market, cumin seed has been scarce and the situation will probably not feel any relief despite arrivals which are due in the near future. Shipping offers for Indian celery seed were on a par with spot levels, it was said, and the pressure of the last crop has relaxed. The first shipments of new crop Spanish paprika are expected during the comng week. The Spanish market is firm, and on spot stocks have been exhausted.

Price Trends

Advanced

Caraway seed, Dutch, ½c. per lb.
Polish, 1c. per lb.
Cumin seed, Iranian, ½c. per lb.
Paprika, Yugoslavian, 1½c. per lb.
Vetiver oil, Haitian, 50c. per lb.

Reduced

Cardamoms, Alleppey green, 10c. per lb.
Alleppey decorticated, 5c. per lb.
Cedarleaf oil, 25c. per lb.
Cinnamon, Ceylon No. 2, 3c. per lb.
No. 0000, 2c. per lb.
Citral, 20c. per lb.
Extra, 20c. per lb.
Citronellol, 30c. per lb.
Cloves, Madagascar 3c. per lb.
Geraniol, standard, 15c. per lb.
Soap grade, 25c. per lb.
Ginger, Cochin, ½c. per lb.
Ginger oil, 50c. per lb.
Hyrdoxycitronellal, 30c. per lb.
b-Ionone, 20c. per lb.
Linalool, ex bois de rose, 20c. per lb.
Methyl ionone, 20c. per lb.
Pepper, Malabar black, 1c. per lb.
Lampong black, ¾c. per lb.
Sarawak black, 1¾c. per lb.
Muntok white, ½c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
145.51	145.74	146.52	146.19

For Current Prices see page 9

Essential Oils

Bergamot—The Italian Consortium, it was reported, declared that bergamot oil will now have a minimum of 40 percent esters. Therefore, it could be possible that prices will rise. The price of bergamot oil last week ranged from $12.75 to $14.00 per pound.

Bois de rose—The market continued to be burdened by supplies exceeding the demand. The growing use of synthetic bois de rose seems to be another factor which makes this market a declining one. For awhile Brazil tried to hold out for better prices, but this source has finally met competition. The lowering of the prices in Brazil caused Peru to drop prices as well. At the moment, this attractively low prices have not caused a real increase in demand.

Cedarleaf—A further decline in the price of the item took effect last week. The current listing of cedarleaf oil ranges from $2.85 to $3.75 per pound or a decline of 25c.

Citronella—Prices have been declining steadily for some time. A touchy situation exists here. This year, China produced a goodly quantity of citronella oil which exporters there offered at prices below Formosa's. This meant that Formosa was left with one major export market—the United States who, due to the embargo maintained by our government on goods from Communist China, cannot purchase Chinese materials. The spot market consumes large amounts of citronella but cannot use all the material that Formosa has to offer. Thus, stocks have been accumulating in Formosa which in turn has caused prices to decline. In the past, political unrest has not resulted in any excess pressure on the oil. Now with the trouble centered around the Chinese offshore island of Quemoy and Matsu the Straits of Formosa could become involved. This could in turn lead to a flurry of buying.

Patchouli—The oil has been declining in price for the past several years, sources reported. In 1956 the price was below or near cost and heavier buying resulted. The price, therefore temporarily firmed, but it was an artificial demand, and prices again softened. In fact they went below the 1956 level in 1957. Users have said that the oil is in abundant quantity, but the quality is somewhat questionable. Two weeks ago, the price of patchouli oil fell further to a range of $4.25 to $5.75 per pound.

Spearmint—The oil remained tight last week, with little oil being offered. Prices continued at the same level, but predictions are that they will advance some more. This market is in bad straits with production estimated at 10 percent below last year's and no carry over of last year's crop. The price last week of spearmint oil was ranged from $6 to $7.10 per pound.

Vetiver—Prices of the Haitian grade oil advanced last week, sources said. The oil has been rising during the past months due to political unrest in Haiti. The unsettled picture has not affected shipments leaving Haiti to any great extent, however. Haitian vetiver oil went up 50c. to a spot listing of $10.50 to $11.50.

Imports Detained at N. Y.

Period Ended October 3

Black pepper, 5 lots, 620 bags
Cassia, 61 lots, 7,349 bales
Coriander seed, 300 bags
Chamomile flowers, 30 cases
Nutmegs, 21 bags
Papain, 5 lots, 184 cases
Chillies, 4 lots, 389 bags

Aromatic Chemicals

Citral—A producer last week cut the price of citral and extra grade citral. The new listing for standard material, $3.65 to $3.85, is 20c. below the previously quoted price. Extra citral was ranged from $4.85 to $5.05, a decline of 20c. Prices have been easing due to the rock bottom prices of citronella oil of which citral is a derivative.

Citronellol—Another aromatic chemical to feel the consequences of the profitless citronella market was citronellol. Last week a producer lowered the listing 30c. to a new reading ranging from $2.60 to $3.75 per pound.

Geraniol—Further reductions in the price of the material occurred last week, sources noted. Standard geraniol was softer by 15c. at a range of $2.05 to $3.40 while soap grade geraniol dropped 25c. to a new listing of $1.10 to $1.75 per pound. Two weeks ago geraniol extra fell to a range of $2.20 to $3. The declines were attributed to price drops in various of the essential oils of which geraniol is a derivative.

Hydroxycitronellal—And still another citronella oil derivative to decline last week was hydroxycitronellal. A drop of 30c. established a new reading which was ranged from $4.50 to $5.30 per pound.

b-Ionone—Following a trend of softening prices beta ionone fell once more last week, it was reported. A drop of 20c. put the new price at a range of $4.20 to $4.90 per pound. The decline is in line with the price drop in citral.

Linalool—Among the declining aromatic chemicals was linalool, ex bois de rose. The cause for the drop was the same one that affected other items in this market. It was the soft price pattern of bois de rose oil of which linalool is a derivative. The material eased 20c. to a new reading which was ranged from $3.90 to $4.50 per pound for material in drums.

Methyl ionone—Producers last week cut the price of standard methyl ionone. The

new inside listing, $3.85 per pound, is 20c. less than had been previously quoted on spot.

Seeds and Spices

Nutmegs—West Indian material was moving well last week due to the saving over East Indian grades. East Indian nutmegs were tightly held, and shipping offers were non-existant. Prices were at the same levels with West Indian nutmegs listed at $1.95, and East Indian material at $2.30 per pound on spot.

Pepper—Prices of black pepper declined slightly last week. Spots and nearbys were almost on the same level as futures which are cheap. The quiet market has a simmering background, however. The Sarawak crop did not amount to much. Indonesia was reported to have a small crop and with present unrest in the area is an uncertain supplier. India marketed the bulk of last year's crop to others in the world market rather than the United States. The situation was made further unsettled by anxiety over the political conditions in the Far East.

Magnus Is Honored

For distinguished and exceptional service, Col. Joseph Baird Magnus, commandant of the Veteran Corps of Artillery of New York State, received a special citation October 7 from the National Military Order of World Wars.

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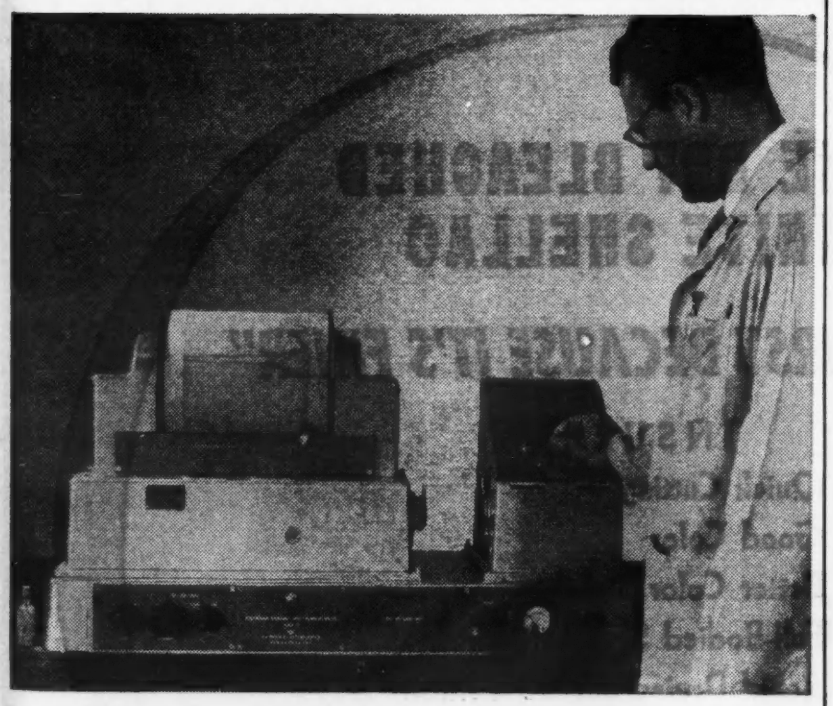

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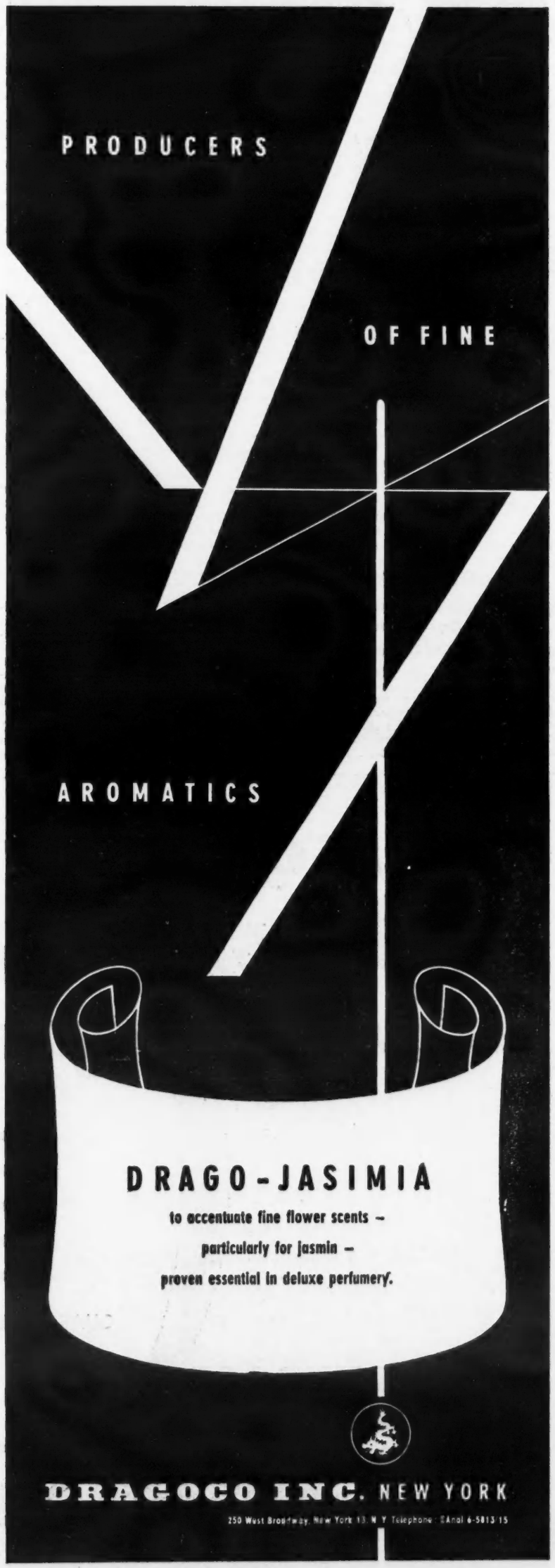

FPVPC Convention Report

Paint Federation Prestige Will Grow

—*Continued from page 7*

• Perfection of latex paints in the recent postwar period.

There have been many other scientific achievements since World War II, he said, adding that "now our scientific research is being taxed by the new requirements of the government's jet planes and missile programs."

Twenty Year Finish Envisioned

A clear finishing system for the exterior of houses that may last for twenty years, and still other coatings that may last much longer, were envisioned in the Mattiello memorial lecture by Dr. Eugene G. Rochow, professor of inorganic chemistry at Harvard University.

Such protective coating performance for the future, he said, is predicated on vehicles composed of both organic and inorganic complexes, with the ultimate durability finishes being essentially straight organic materials plasticized by modifying internal molecular structure. No such materials are available today, but research is eventually expected to develop them.

The natural wood finish referred to above, expected to last twenty years without attention, is based on an acrylic polymer containing 10 percent methylphenyl silicone resin. Enough brown pigment to act as an ultraviolet light absorber was incorporated in the acrylic finish.

"Time only, will tell whether this approach to lower maintenance is successful," Dr. Rochow said. "It is surely not a perfect solution: for one thing, it colors the wood with its rather necessary pigment. I say 'necessary' because the wood and the coating need some protection from the sun and its deteriorating ultra-violet radiation.

"Need the pigment be opaque to visible light, though, and obscure the color and grain of the wood? Why not a pigment transparent to visible light, but opaque to ultra violet? And while we are at it, why not make it of the same refractive index as the varnish resins, so it would be entirely invisible while it does its work?

"Obviously there is room for a great deal of improvement in pigments. They may be as necessary for strength and durability as is the aggregate in concrete, but they could be a great deal more subtle about it."

Election of Officers

Raymond C. Adams of Gilman Paint & Varnish Company, Chattanooga, Tenn., was named president-elect of the federation for the coming year. Mr. Adams, formerly treasurer of FPVPC, will automatically succeed to the federation presidency at the 1959 convention.

Eugene H. Ott of Ferbert-Schorndorfer Company, Cleveland, Ohio, was elected treasurer of the organization. C. Homer Flynn was renamed executive secretary of the federation.

INSTALLED AS PRESIDENT: Howard G. Sholl of C. M. Athey Paint Company, Baltimore, Md., installed last week as president of the Federation of Paint and Varnish Production Clubs.

Roon Award Technical Papers

Pigment Optical Behavior—Evaluation on a Physical Basis

Parker B. Mitton and Lawrence S. White

It is universally accepted that the optical properties of pigments are of major importance for their use in coatings and allied fields. Many papers have been published discussing various aspects of the subject. Some are highly theoretical, while others are extremely empirical. It is the object of this paper to show how pigment-optical tests can be explained, evaluated in terms of physically significant quantities, and even predicted, on the basis of one workable system of pigment optics. Although the discussion below is concerned primarily with white pigments, the principles are directly applicable to colored pigments.

As an example of what any useful theory of pigment optics must be able to explain, consider the following situation where white pigments A and B are formulated into corresponding high gloss paints, paint A and paint B:

1. When portions of the paints are tinted to make gray paints, it is found that although the tinting strength of both pigments is about the same, the film from paint A has a bluer tone than that from paint B.

2. When the original white paints are applied as thin films over a black background, paint A still has a bluer tone than paint B.

3. However, as the film thickness of the application is increased toward the point of complete hiding, the tones of the white films change and paint B now has a bluer tone than paint A.

These relations are illustrated where the tone of the dry films is measured by the difference in the reflectance reading with a blue filter and the reading with the red filter of a three-filter colorimeter. This difference is conveniently called a blue-minus-red, or B-R, value. Since the film thicknesses involved do not fall upon a linear scale, the B-R values are plotted against the reflectance reading with the green filter; approximate wet-film thicknesses are also indicated in the figure. To explain these relations, it is necessary to consider the theory involved.

Theory

To describe the optical properties of pigmentations the following problem must be solved. In Figure 2, consider a pigmented film of a practical pigment-volume-concentration (hereafter PVC) of thickness T over a substrate whose reflectance is R_s. The top of the film is illuminated with monochromatic diffuse light. The light enters the film and is scattered from one pigment particle to another and eventually returns to the top surface. During this process, some light is absorbed by the particles, the vehicle, and the substrate. The problem is to determine the reflectance of this film from theory.

There are two general approaches. In the first, the procedure is to analyze the scattering event at each particle and somehow sum up the effect of all these scattering processes over the whole system, taking into account the absorption processes as well. So far, no practical results have been obtained for pigmented films by such a procedure.

In the second approach to the problem, the actual nature of the individual scattering events is not considered. Instead, the behavior of the light at a differential layer within the film is analyzed. Of the light incident upon this layer some is transmitted, some is absorbed, and some is returned by scattering in the opposite direction. The light which reaches the substrate is reflected upward in proportion to the reflectance of the substrate and undergoes further scattering and absorption. This essentially is the procedure used in the Kubelka-Munk (hereafter K-M) two-constant theory[1] which will now be discussed.

It is not necessary to show here the derivation of the various equations which may be obtained from the K-M theory; this has been adequately done elsewhere. For those who may not be familair with this theory, the important thing to remember is that only two constants are necessary to explain the optical characteristics of pigmented films. These constants are S, the scattering coefficient, and K, the absorption coefficient; the former is a measure of the amount of

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light scattered by the system and the latter is a measure of the amount of light absorbed by the system. The dimensions of both S and K are reciprocal length (e.g. mil^{-1}).

There are many ways in which the solution to the basic K-M equation can be expressed depending upon the particular application under study. Two important cases for paints will be considered here. The first one relates S and K to the reflectance of a film so thick that a further increase in thickness does not change its reflectance, that is, optically, an infinitely thick film.

(Eq. 1)

$$\frac{K}{S} = \frac{(1 - R_\infty)^2}{2R_\infty}$$, where R_∞ is reflectivity.

The important features of this relationship are that for white films R_∞ depends almost equally upon both S and K and that as the ratio, K/S, increases, R_∞ decreases.

The second case applies to incompletely hiding films on a black substrate. The equation of interest is

$$B = \frac{R}{a + b \coth SbT}$$

Where R_B = reflectance over back

$$a = \frac{K + S}{S}$$

$$b = (a^2 - 1)^{1/2}$$

T = wet-film thickness in mills.

Limits of Validity

In the derivation of these equations, certain assumptions have been made and a few words concerning these assumptions are pertinent.

1. The equations take no account of the Fresnel reflections from both sides of the air-film interface. While it is possible to take this effect into account, the correction is complicated and for most applications to paints has not been found to be required.

2. It is assumed that S and K are constant throughout the film, which implies homogeneous distribution of the pigment within the film. Except for extreme cases of settling or flooding, this assumption is probably valid.

3. An essential requirement of the theory is that both the light incident upon the film and everywhere within the film be diffuse. Kubelka has shown theoretically that parallel light at 60° is equivalent to illumination with diffuse light. Stenius showed experimentally that other geometries such as are used in photometric instruments in most laboratories do not introduce significant differences over a wide range of reflectance. Within the film, experimental evidence has shown that the light is diffuse for practical PVC's.

Duntley has derived a theory similar to the K-M theory without these simplifying assumptions, but eight constants instead of two are required in order to characterize each pigmentation. This theory has not had any practical application in the paint field since, in most cases of interest it may be reduced to K-M theory.

Some of the applications for which the K-M theory has been successful include measurements of opacity of paper, color

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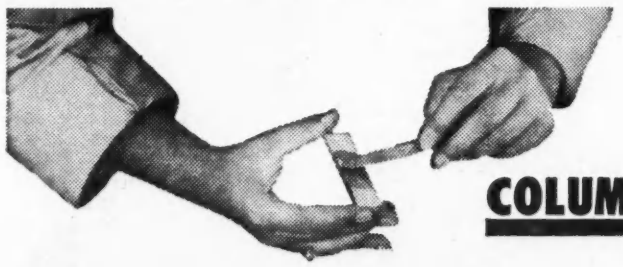

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A better understanding of the significance of S and K may be obtained by discussing the relation of S and K to the physical properties of pigments. Although most of the examples to be given are for titanium dioxide, with suitable modifications they would apply to other pigments, either white or colored.

It should be pointed out that while the S and K values are normally determined for the entire pigmented system, usually it is the S and K of the pigment in that system which are most interesting. In the case of ideal systems containing only a single pigment in a colorless vehicle, the S and K of the system arise entirely from the pigment. All single-phase vehicles contribute nothing to S but they contribute to the K of the system unless perfectly colorless. In the general case the system contains white and colored pigments, extenders, and a yellowish vehicle. The principle of additivity applies here in that the total scattering coefficient for the system, S, is the sum of the S_i's for each component in the system, and similarly the total absorption coefficient, K, of the system is the sum of the individual K_i's.

Effect of Wavelength

It should be noted that in the derivation of the theory only monochromatic light has been considered. In practice, S and K are measured for the banks of wavelengths, blue, green, and red, of a three-filter colorimeter. The variation of S and K with wavelength will now be discussed.

1. **Scattering Coefficient-S**—S of a pigment at any wavelength is a function of the ratio of the refractive index of the pigment particles to that of the vehicle, particle shape and size distribution, the degree of dispersion of the pigment, and the PVC.

S and K as Components of Paint Systems

In considering pigmentations in general, a knowledge of the following relative magnitudes of S and K will be useful.

1. **Dispersed Phase**

a. **Whites**—For any white material the K value is very small. For titanium dioxide pigments, S is high; in the case of calcium-based titanium dioxide pigments, the S is roughly proportional to the titanium dioxide content. For other white pigments, such as zinc oxide and white lead which have lower refractive indexes, S is considerably lower than for titanium dioxide pigments.

b. **Colored Pigments**—Genrally, S is of medium to high value and K will vary from low to very high in magnitude with wavelength. Some numerical data are avail able ([28],[26]).

c. **Black Pigments**—Black pigments, such as carbon black, have very low S and high K with little variation with wavelength (compared to colored pigments).

2. **Continuous Phase**

a. **Vehicles**—As has been mentioned before, vehicles have a neglible K-M scattering-coefficient value, but practically all vehicles have an appreciable K value which varies with wavelength.

b. **Dyes**—Solution-type dyes are molecularly dispersed so that S is negligible while K varies with wavelength. Generally, driers can be considered as dyes.

Interpretation of Optical Tests

Two tinting-strength tests for white pigments are commonly employed. The first one includes various modifications of the Reynolds' Constant - Volume - Tinting - Strength method, one of which is specified by the ASTM. The second is the common test of adding a colorant to a white paint and measuring the green reflectance of the sample versus that of a standard. Both of these tests are for optically, infinitely thick films. Consequently, the infinite-thickness equation (Eq. 1) applies. If we consider the latter type of test in which the colorant added to the paint is black and the level of tinting is such that the reflectivity is about 40 percent, then the K/S value is 0.45. Since the S value of a typical titanium- dioxide-pigmented system at 15 percent PVC may be taken as 2.0, then the K of the system is 0.90. It should be mentioned that any scattering caused by the carbon black (which is usually less than 0.3 percent by weight of the titanium dioxide) may be neglected in comparison to that of the titanium dioxide. The K of the titanium dioxide is of the order of 0.004; this is only about 0.4 percent of the total K. In other words, it is the K of the carbon black which essentially determines the K of the system. The K of the black in the paint system is fixed since a constant weight is used, so that it is only the S of the titanium dioxide pigment which changes the measured reflectance value, and consequently the tinting strength. A similar reasoning applies to the Reynolds' test although there are some complications because of the S of the blue pigment cannot be completely neglected.

The two tests do not always give the same results because of differences in the tests. These include different PVC's, different tinting materials which undoubtedly flood differently because they have different mobilities, and different degrees of dispersion (alkyd are generally conceded to produce a better degree of dispersion than the linseed oil used in the Reynolds' test.)

Tone—The B-R values of these gray tinted measure their tone. The B-R value depends upon the relative, average particle size. For example, pigment A which has the highest B-R value also has the greatest proportion of fine particles. The effect of particle size on tone has been pointed out many times before.

Stearns has used K-M theory to good advantage in explaining the mass tone of colored pigments.

Hiding Power—Hiding power is determined by measuring the contrast ratio of a dry-paint film of uniform thickness. The contrast ratio is the reflectance of the film over a black background divided by the reflectance of an equivalent thickness of the film over a white background. The film thickness (in some convenient units) required to give a contrast ratio of 0.98 is taken as a measure of the hiding power of the paint.

Strictly, this film thickness is a function of both S and K, or what is equivalent, S and R_∞; that is, hiding power should have two parameter values. Generally, however, hiding power is reported in either square feet per pound of pigment at a 0.98 contrast ratio; the reflectivity level is usually ignored.

But while ignored, in evaluating hiding power, it is not neglected in practical applications. Considerable use is made of the fact that hiding increases when K is increased even when S remains constant. This is the wellknown effect of toning a paint to increase hiding. By taking advantage of the fact that a negligible change in S occurs for most toning agents, Mitton has shown how a quantitative estimate of the increase in hiding power can be made from a knowledge of the change in reflectivity of the toned paint.

Application of Theory to Original Examples

The K-M theory will now be applied to the examples given at the beginning. First, consider the gray film where paint A was bluer than paint B. From the previous discussion of B-R values of tinted films, it is obvious that the pigment in paint A has a finer, effective-particle size than that in paint B.

It was said that when the white paints were applied in thin films over a black substrate paint A was still bluer in tone (higher B-R value) than paint B. It will be noted that as the film thickness decreases, the influence of the K becomes negligible; that is, the reflectance is determined here essentially by the scattering coefficient. Since the tone is the difference in the blue reflectance minus the red reflectance, this difference, in turn, depends upon the difference in the scattering coefficient in the blue minus that in the red; this is again a function of particle size of the pigment in the paint. Pigment A, as shown before, has a finer size than pigment B.

Finally, with the white paints applied at an optically, infinite thickness, paint B appeared bluer than paint A. (Optically, this is equivalent to color-in-oil pastes). It will be noted that the S values vary no more than about 5 percent and that the K values with the red filter are nearly the same. However, the K value for the blue filter of paint A is 75 percent greater than that for paint B. Thus, in this case, paint B is bluer than paint A because the pigment in paint B absorbs much less of the blue light than does the pigment in paint A. Putting it another way, pigment B's inherent color is bluer than that of pigment A.

Conclusion

A workable system of pigment optics has been described for evaluating pigmentations in terms of physically significant quantities. This system, however, needs further development to cope with the general case. For example, development of better methods is needed for separating the K of the pigment from the K of the total paint system; more detailed information needs to be known for applying the additivity principle to paints containing extenders, and more information about the effect of PVC on S and K is needed.

FEDERATION'S TREASURER: Eugene H. Ott of Forbert-Schorndorfer Company, Cleveland, Ohio, elected treasurer of the Federation of Paint and Varnish Production Clubs.

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FPVPC Convention Report

EXECUTIVE SECRETARY: C. Homer Flynn, re-elected executive secretary of the Federation of Paint and Varnish Production Clubs.

Solvent Properties of Olefins From Petroleum

W. W. Reynolds and H. Low

Olefinic solvents derived from pine trees were once the most commonly used solvents in the paint industry. Turpentine and dipentene still find application in house paints and in some varnishes; however, the terpene solvents have been essentially replaced by lower-cost hydrocarbon solvents derived from petroleum. Since most petroleum solvents contain only minor amounts of olefins (0-5%), little attention is given today to olefins as solvents.

This attitude may not be entirely justified since concentration of a given component could occur during evaporation of the solvent from a paint film. Without an adequate knowledge of the properties of olefins as solvents for paint systems, it is difficult to conclude what influence olefins might have on the performance of petroleum solvents. Characteristic behavior of olefins as paint solvents has apparently not heretofore been the subject of a general investigation. This paper presents the result of a study to determine the solvent properties of some of the types of olefins that could be present in petroleum solvents. Pure a-olefins ranging from C_6 to C_{16} and a nominally C_{12} olefin fraction derived from commercially-produced propylene tetramer were examined. The study covers the solvent properties of olefins from the standpoint of odor, solvency and solvent release characteristics from thin films. Throughout this investigation the solvent properties of olefins were assessed and compared with their saturated counterparts.

Solvent Properties of Olefins

The a-olefins used in this study were obtained from Phillips Petroleum and had a minimum purity of 99%m. All olefins were further purified before use by percolation over 35 lb/bbl of freshly tempered 30/60 Attapulgus clay. This treatment removed products of oxidation and reduced the peroxide content to 0.05 or less.

General Properties of Mono-olefins

Some insight into the general solvent characteristics of olefins can be gained by reference to their physical properties. The presence of a double bond in the a-position of a straight chain hydrocarbon results in a slightly lower boiling point. However, a comparison of isoparaffins and cycloparaffins with their olefinic counterparts shows just the opposite effect due to the presence of the double bond. In every case vapor pressures are in accord with boiling points. It is of interest to note that the naphthenes have a higher and the branched chain compounds a lower boiling point that the n-alkanes and l-alkanes with the same number of carbon atoms. Another general observation is that the olefins have a higher density, a lower molar volume, a lower viscosity and a higher surface tension than the comparable saturated compounds.

Very little information is available in the literature on the odor of pure olefins in spite of the presence of olefins in many natural products such as fats and essential oils. Since this is an important solvent property, the odors of C_6 to C_{16} monoolefins were compared to those of normal paraffins by a selected panel of five members. A wide-mouth bottle was used and the bulk odor of the solvents was rated on the basis of intensity and quality. All odor testing was done at room temperature (approximately 77°F).

Odor of Olefins, Paraffins

It was found that there is a considerable difference in odor between olefins and paraffins as well as among olefins themselves. Olefins with up to eight carbon atoms per molecule are quite odoriferous (objectionable both in intensity and quality); the corresponding paraffins, while also of high odor level, are not as objectionable as the olefins. Olefins of ten to twelve carbon atoms were judged to have low odor level of a rather sweet and pleasant quality. The corresponding paraffins are also of low odor. Olefins of 14 and more carbon atoms are odorless in the pure state. Aside from the difficulty of evaluating odor due to the subjective preference of the tester, olefins can easily be misjudged due to the presence of impurities. It was observed that as little as 0.1 milliequivalents of peroxidic oxygen per liter of olefin will impart an objectionable odor to an otherwise almost odorless material. Thus, what is often taken as the characteristic odor of olefins is actually the odor of products of oxidation which may be present in only trace amounts.

The primary functional role of the solvent is to dissolve or disperse the solute. In the case of petroleum solvents this ability is commonly evaluated by the aniline cloud point (ACP) or kauri butanol value (KB). The shortcomings of these methods are well known and additional means of evaluating solvent power have been proposed. A very useful method is the dilution limit which is the amount of solvent that can be added to the solute (expressed in per cent by weight of solute) before precipitation occurs. Since alkyd resins are the most commonly used film formers in the paint industry, we selected a typical resin of this type for determining dilution limits. The resin, "R-405," was a 100% solids tall oil glycerol alkyd of medium oil length with a 35% phthalic content.

Aniline cloud point and kauri butanol data are seen to be essentially in agreement with the evaluation of solvent power according to dilution limits. Therefore, it can be concluded that for this system KB and ACP are reasonably reliable measures of solvent power.

The concept of solubility parameter, while not a practical measure of solvent power, is a useful means of evaluating and interpreting solubility phenomena in polymer solutions and has been applied successfully to paint systems. There are several ways of arriving at the solubility parameter (SP). Two methods were used in this work: Calculation from surface tension data and from boiling point data. The methods were found to be in good agreement with each other.

Results Are Summarized

The results can be summarized as follows:

1. The solvent power of l-alkanes measured by the conventional KB and ACP is in agreement with DL determinations.

2. The introduction of a double bond into n-alkanes and cycloalkanes increases solvent power.

3. An increase in molecular weight of the l-alkanes is accompanied by a lowering of solvent power.

4. Branching decreases the solvent power of both alkenes and alkanes.

From the foregoing discussion of olefins, two facts of practical significance to

—Continued on page 63

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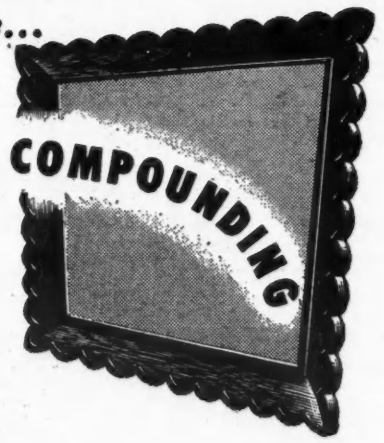

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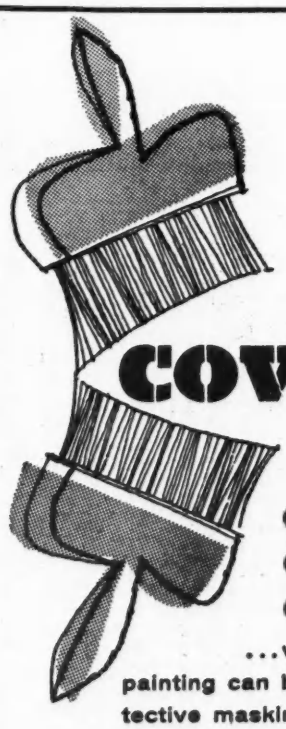

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Coatings Materials

Pig lead, with oxide moving along with it, scored another price advance last Wednesday. Like the two posted a week earlier, it amounted to ½ cent per pound, and, also like those advances, it was the result of market strength stemming from the activation of import limits. Lead oxides are now 1½ cent above the levels prevailing a week ago last Wednesday, with red lead quoted at 14¾ cents for 95 percent lead, 14.95 cents for 97 percent and 15.10 cents for 98 percent. Litharge moves up to 14¾ cents and mineral orange to 17.10 cents, carlots.

Zinc also has been on a price spree as a result of the government's program, but this has failed to affect oxide. Trade sources, noting that current oxide quotations were established several years ago when zinc was 3 cents per pound higher, do not expect the pigments to respond. In fact, it is generally felt that these prices have become linked solely to costs and competition, with metal fluctuations only a negligible factor.

In connection with zinc oxide, the trade was reminded last week that the leaded type is now available in two economy grades of low lead concentration. One grade, with 12 percent lead, sells at 12¼ cents per pound, and the other, with 18 percent, at 13¾ cents.

The plasticizer market has improved greatly in business volume, approaching a brisk fourth-quarter pace, but price tone of the phthalate group continues unsettled. As in previous instances of widespread shading, the condition began with sniping by marginal firms and newcomers, and later spread to the majors.

The Tariff Commission's monthly report on synthetic resins showed a mixed sales pattern for July. While vinyls were declining sharply from 57,986,479 pounds to 53,294,195, coumarone-indenes moved upward to 19,016,319 pounds from the prior month's 18,116,521.

Price Trends

Advanced
Lead, red, ½c. per lb.
Litharge, ½c. per lb.
Mineral orange, ½c. per lb.

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
103.09	103.09	101.45	101.31

For Current Prices see page 9

Prime Pigments

Carbon Black—The following figures in thousands of pounds, indicate production, shipments, stocks and exports of carbon black for August, 1958, with figures for July, 1958, and August, 1957, reported for comparison:

	Furnace	Contact	Total
Production			
August, 1958	112,190	27,946	140,136
July, 1958	108,815	28,134	136,949
August, 1957	126,919	30,268	157,187
Shipments			
August, 1958	118,313	25,058	143,371
July, 1958	113,801	23,645	137,446
August, 1957	119,739	26,898	146,637
Stocks			
August, 1958	234,206	100,518	334,724
July, 1958	240,329	97,630	337,959
August, 1957	259,930	75,400	335,330
Exports			
August, 1958	*	*	*
July, 1958	24,871	10,970	35,841
August, 1957	19,501	12,699	32,200

* Not available.

Lead Pigments—Pig lead, with oxide moving along with it, scored another price advance last Wednesday. Like the two posted a week earlier it amounted to ½c. per pound. Also like those advances, it resulted from the strong tone imparted to the market by recently activated import quotas.

The schedule for lead oxide now quotes red lead at 14¾c. per pound for 95 percent, 14.95c. for 97 percent and 15.10c. for 98 percent. Litharge lists at 14¾c. and mineral orange at 17.10c., carlots.

Titanium Dioxide—Bureau of the Census has reported July output of TiO_2 at 33,202 short tons as against the previous month's 30,609. Stocks on July 31 were tabbed at 40,593 tons, down from 44,408 on June 30. This works out to a slight increase in shipments despite the lower output.

Zinc Oxide—As reported in this space a week ago, leaded zinc oxide has been made available in economy grades of lower lead concentration. Two types are offered by a major producer: 12 percent leaded selling at 12¼c. per pound, and 18 percent leaded at 13¾c. per pound, carlots. Standard differentials apply for West Coast shipments.

Zinc oxide pigments failed to react to the sharp advances reported for pig lead and zinc, and informed sources looked for continued steadiness. It was noted that the pigment quotations had been established quite some time ago when the two metals were selling at prices ranging about 3c. per pound over current levels.

Fillers and Inerts

Asbestos—Shipments have steadily increased after falling off to a trickle during the recession-bound months of late Spring. The strongest outlets right now are brake lining and construction materials. Asbestos textiles and paper still are depressed, according to reports from the industry.

Prices of crude are reported steady and unchanged at the higher levels that went into effect on January 1. Supply is ample.

Blanc Fixe—Domestic material is meeting good seasonal demand at the recent sharp price advance. Effective October 1, direct process blanc fixe was advanced $20 per ton to $145 for carlots at West Virginia, $155 for smaller lots, same basis, and $195 for New York warehouse material. Prodding the advance were higher costs of labor and equipment, trade sources said.

Natural Resins

Copal Gum—Small lots of bags were in moderate call for immediate shipment. Overall market conditions were rated fair to good with seasonal improvement in evidence. Adequate stocks were on hand to meet consuming requirements.

Congo copals were said to be meeting particularly good demand at unchanged quotations of 25c. to 26c. per pound for No. 1, 22c. to 24c. for No. 2 and 15¾c. to 17c. for No. 3. Philippine grades moved at 23¾c to 26c. per pound for pale chips and 33¼c. to 37c. for nubs.

Dammar Gum—Quotations were without change against a steady sales volume.

Shellac—There have been no price revisions in this market following the establishment of floor levels at Calcutta several months back. Brisk demand was experienced by orange grades last week at 38c. to 39c. per pound for No. 1, 36c. to 37c.

Coatings Shipments, Output: July

	Factory shipments Dollars		Reported production Gallons	
	June†	July	June†	July
Trades sales	$107,900,000	$101,900,000	34,100,000	34,400,000
Industrial sales, total	50,700,000	47,400,000	22,900,000	22,200,000
Paint and Varnish	36,100,000	34,300,000	16,200,000	16,100,000
Lacquer	14,600,000	13,100,000	6,700,000	6,100,000
Overall totals	$158,600,000	$149,300,000	*57,000,000	*56,600,000

Total sales, Jan.-July: $895,525,000.

* Detail does not add to total because some respondents reported only total production without indicating allocation as to trade or industrial outlets.

† Revised.

Coatings Materials

for No. 2 and 34c. to 35c. for superfine.

Miscellaneous

Casein—Buying interest lagged with Argentine material quoted unchanged at 18¾c. to 19c. per pound, forward shipment.

According to a private estimate on exports of casein to this country during the first six months of the year, shipments from Argentina underwent a decline while those from Australia rose correspondingly. Argentina shipped about 12,000 tons against last year's 14,200, while Australian shipments increased to 4,300 tons from last year's 1,200.

Glue—The following figures compiled by the Bureau of Census indicate production, shipments and stocks of bone and hide glue in thousands of pounds during August with July's figures shown for comparison:

Production

	July	August
Hide glue, total	2.872	2.481
Low Grade	1.208	1.041
Medium grade	1.126	779
High grade	444	515
Extra high grade	94	147
Bone glue, total	4.362	4.470
Green	3.402	3.577
Extracted	960	893
Glue, total	7.234	6.951

Shipments

Hide glue, total	4.309	3.468
Low grade	1.190	1.382
Medium grade	1.360	1.215
High grade	845	590
Extra high grade	314	281
Bone glue, total	4.447	3.991
Green	3.404	2.868
Extracted	1.043	1.123
Glue, total	8.756	7.459

Stocks

Hide glue, total	24.743	26.180
Low grade	7.896	8.446
Medium grade	9.068	9.302
High grade	6.213	6.614
Extra high grade	1.598	1.818
Bone glue, total	11.544	11.629
Green	8.112	8.114
Extracted	3.432	3.515
Glue, total	36,287	37,809

Naval Stores

Pine Gum—For the week ended September 27 the average price per standard barrel of commercial crude pine gum was reported at $25.07 as compared with $25.04 the previous week and $25.13 a year ago. The volume of gum deliveries to plants amounted to 16,840 barrels as against 16,673 the previous week and 17,425 a year ago. Content per barrel averaged 10.89 gallons of turpentine and 299.3 pounds of rosin. Gum grading percentages ranged as follows: WW, 28; WG, 33; N, 17; M, 15; and K and below, 7.

Rosin—Source market trade was active in September, according to a summary issued by Agricultural Marketing Service. After a steady start, WW prices commenced in mid-month to rise rapidly, closing at $8.60 as compared with the opening quotation of $8.29. Three factors combined to limit WW stocks, resulting in the price advance: a ten percent decline in overall recepits, a relatively smaller percentage of this grade, and the beginning of seasonal stock shrinkage. In reference to the second factor, the report noted that during the first half of the crop year WW receipts totaled 34.000 barrels less than in the similar period of last year.

The weighted average price for all grades was $8.27, as against $8.10 the previous month and $7.74 in September 1957. Total reported sales volume of 14,275 drums was 2,493 higher than last month and 3,345 higher than in September 1957.

Rosin, Gum
(USDA, per 100 lbs.)

	Fri. Oct. 3	Mon. Oct. 6	Tues. Oct. 7	Wed. Oct. 8	Thurs. Oct. 9
Drums—					
H		$8.00			
I		8.00			
K			$8.00[1]	$7.96[1]	
M				7.84	$7.93
WG	$8.17			8.32	8.34[§]
WW	8.78	8.72		8.75	8.76[§]
Bags—					
M	7.65				
N	7.70		7.92		7.67
WW					8.36

Tankcars (for week ended October 3). M or better, $7.40.

Sales, USDA
403* 1,150* 240* 704* 402*

New York
(per 100 lbs., c.l., Friday)
WW, $9.90; WG, $9.50; N, $9.25; K-M, $9.10.

Turpentine, Gum
(USDA, per gal., 7.2 lbs.)

Price	.505		.504[§]	.505	
Sales	4.000[¶]		12.000[¶]	4.000[¶]	

New York, Friday, per gal. 7 lbs., tankcars, 63c., l.c.l. 82c.

* Drums equivalent. ¶ Gallons. § Average price. [1] K or better.

FPVPC Convention Report

Roon Award Technical Papers

—Continued from page 61

the producer of solvents are evident: first, olefins are better solvents than their paraffin analogs; secondly, olefins in the petroleum thinner boiling range are of very low and pleasant odor. The latter property has been stressed of late in the paint industry as evidenced by the various odorless solvents available on the market and has led to the development of odorless solvents derived from petroleum alkylate. These solvents are essentially C_{12} isoparaffins. The studies on pure olefins suggested that a low odor solvent with increased solvent power could be derived from a C_{12} olefinic material; propylene tetramer is an available source of olefins in the C_{12} boiling range.

Olefinic Solvent From Propylene

A distillation cut of propylene tetramer with a boiling range of 360-410°F was prepared which corresponded to the boiling range of an odorless solvent derived from aviation alkylate. The molecular weight of this fraction was determined ebullimetrically to be 177 indicating that it was predominantly dodecene which has a molecular weight of 168. Percolation of the olefinic solvent over 20 lb/bbl of 30/60 Altapulgas clay at 100-150°F produced a material of very low odor with a fragrant sweet quality.

Properties

The distillation ranges and evaporation rate data indicate that the three solvents have essentially the same volatility characteristics.

Solvent Power

On the basis of kauri butanol values and aniline cloud points, it appears that the Olefinic Solvent has a solvent power superior to the Odorless Solvent and equal to, if not greater than, the Low-Odor Solvent.

Dilution limits were determined with the "R-405" alkyd resin; the value for Odorless Solvent was 23.0 compared to 6.7 for the Olefinic Solvent and 4.0 for the Low-Odor Solvent. Thus, it is apparent that the Olefinic Solvent closely resembles the Low-Odor Solvent in its ability to dissolve this resin and is superior in this respect to the Odorless Solvent.

Viscosity Studies

Viscosity studies were also carried out with the Odorless Solvent and the Olefinic Solvent and with combinations of the two. A 30%w "R-405" solution was used in all cases. It can be concluded that the Olefinic Solvent has the same solvent power as the Low-Odor Solvent based on both solubility and viscosity reduction data.

Evaluation of Paint Formulations—The performance of the Olefinic Solvent was also evaluated in both a flat and gloss enamel formulation along with the Low-Odor Solvent and the Odorless Solvent.

It is interesting to observe that the drying rate of the enamel thinned with the Olefinic Solvent was the fastest as shown by the set touch, cotton free and dry hard times. This is contrary to the results found in the Shell Evaporometer where the Olefinic Solvent has the slowest solvent evaporation rate of the three solvents.

Conclusions—Pure olefins in the paint solvent boiling range have a very low level odor which has a rather sweet pleasant quality. Both a- and g-olefins have higher solvent power for alkyd resins than their alkane counterparts. This enhanced solvency is the result of the presence of the double bond which allows dipole interaction with the polar solute. The superiority of the olefins over paraffins is shown by both solubility and rheological measurements with resin solutions. Paint thinned with an Olefinic Solvent derived from propylene tetramer behaved in an entirely normal manner consistent with the results found with clear resin-solvent systems.

Other technical papers presented at last week's federation convention will appear in the November 3rd OPD, in conjunction with this paper's special report on the annual meeting of the National Paint, Varnish and Lacquer Association in Washington, D.C.

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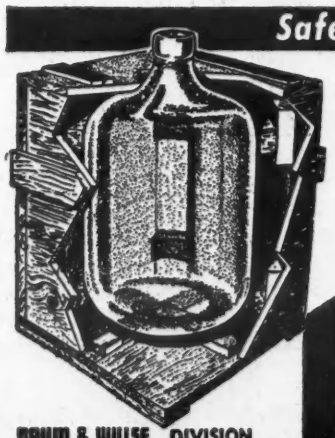
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Oils, Fats and Waxes

Bulk of trading in edible oils was centered in soybean oil last week. Consumers purchased sizable lots of crude oil for prompt shipment, which raised prices sharply temporarily, but gains were later wiped out. Interest in refined soya lagged. Corn oil was stronger and advanced fractionally. Peanut oil was irregular but closed steady. Cottonseed oil also was easy and slightly lower. Coconut oil continued steady with light sales at former levels. Trading, however, was light, with buyers and sellers about ¼ cent apart.

Further weakness developed in soybean meal. Nearby declined $5 per ton and later deliveries, $3.50 to $5 per ton.

As a result of light offers of tallow and greases, moderate trading took place at a slightly advance last week. Soapers were purchasers at the advance, but export interest was withdrawn at the higer levels. Cash lard was firmer, but irregular, closing fractionally higher.

Consumers stepped up the call for linseed oil against existing contracts, while new business continued confined to fill-in needs. Market remained steady and quotably unchanged. Interest in tung oil was still slow as the trade awaited the announcement of the support price by the government. Oiticica remained steady, despite spotty demand, chiefly for nearby delivery. New crop rapeseed oil was available at 1 cent per pound below quotations for late October delivery. Crude menhaden oil was quiet, but limited production was well held at farctionally higher levels. Production has practically ceased for this season.

Price Trends

Advanced

Corn oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Greases, ⅛c. per lb.
Lard, cash, ¼c. per lb.
Menhaden oil, crude, ¼c. per lb.
Tallow, inedible, ⅛c. per lb.

Reduced

Cocoa butter, 2c. per lb.
Copra, $2 per ton.
Cottonseed oil, crude, ⅛c. per lb.
Refd., ¼c. per lb.
Rapeseed oil, 1c. per lb.
Soybean meal, $5 per ton.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 11, 1957
106.76	108.02	107.53	114.29

For Current Prices see page 9

Vegetable Oils

Castor—This market was unchanged and steady. Business was moderate in No. 1 Brazilian at 16c. per pound, tankcars, New York, prompt delivery. Domestic oil also was in fair request for immediate delivery.

Import of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oils
Last week	762,300	.....
Previous week	.....	1,492,000
Corresponding week, 1957	484,000	1,206,000
Total this year	11,630,300	56,395,000
Corresponding period, 1957	13,843,100	82,522,000

Coconut — Crude remained steady, and sold at 15c. per pound, tankcars f.o.b. Pacific coast, prompt shipment, and 15⅞c. New York basis.

Corn—Trend of prices was upward with sales at 12½c. per pound, tankcars, f.o.b. mills. Refined was higher at 16.23c. per pound, tankcars, New York, prompt delivery.

Cottonseed — Futures market was irregular, with soybean oil market last week. Prices fluctuations continued narrow, the market closing fractionally lower. Reduced government estimates of the cotton crop had little influence on the market. October tenders were limited to 3 contracts last week. Moderate hedging took place with purchases of December against sales of March and May. Export business continued inactive. Consumers limited purchases of refined oil to actual needs. Salad was offered at 14⅝c. per pound, tankcars, New York, nearby delivery.

Crude oil was quiet and easier. Tankcars were quoted at 11¼c. per pound, in the southeast; 10⅞c., sales, Valley; 10½c., nominal, Lubbock and 10⅝c., nominal Waco.

The government estimated cottonseed production at 4,828,000 tons, October 1 against 4,609,000 tons last season.

Cotton crop estimate of 11,675,000 bales was down by 430,000 bales from a month ago, as issued by the Crop Reporting Board as of October 1. Excessive rains during September reduced prospective production in Central and Western areas. The indicated 1958 crop compares with 10,964,000 bales produced in 1957 and the 1947-56 average of 14,136,000 bales. While the indicated yield per harvested acre of 469 pounds is 17 pounds less than estimated a month ago, it is 52 pounds above the previous high and compares with 388 pounds in 1957 and the 1947-56 average of 317 pounds.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, October 10, follow:

	Sales	High	Low	Close
		Cents per pound		
Oct.	77	13.37	13.13	13.12@13.13
Dec.	412	13.25	13.01	13.01S
March	124	13.31	13.07	13.07@13.08
May	142	13.31	13.07	13.08@13.10
July	37	13.15	12.98	12.98@12.99
Sept.	1	12.60	12.80	12.75@12.78

Total sales and switches, 793 contracts.

Linseed—This market remained steady at unchanged prices. New business was limited to fill-in requirements, while steady improvement was noted for delivery against current contracts. Raw oil was maintained at 13.2c. per pound, tankcars, Decatur, October-December delivery; 13.4c., January-March and 13.6c., April-June, same basis.

Flaxseed — The government report placed the flaxseed crop at 39,969,000 bushels as of October 1 compared with 37,469,000 bushels, September 1; final 1957 production at 25,754,000 bushels, and ten year average, 41,170,000 bushels. Yield per acre was 10.2 bushels against 5.8 bushels last year.

Minneapolis.—Bids were unchanged in this market at $3 a bushel, spot and to-arrive, basis Minneapolis. Demand for unloading at head of the lakes diminished but the limited offerings were readily absorbed by crushers. Harvest was virtually completed. Firmness in cash market persisted despite sharp declines in futures at Winnipeg and Minneapolis, the result of Canadian production estimate of over 23 million bushels, considerably higher than trade anticipations. Only 17 cars were posted as sold in the spot market at Minneapolis, while to-arrive bookings totaled 43 cars and 20,000 bushels. Receipts for all accounts amount to 227 cars, compared with 747 cars a year ago. Shipped were 38 cars, against 2 last year.

Receipts and shipments of flaxseed, in bushels, were as follows:

	Receipts		Shipments
	1958-59	1957-58	1958-59
Past week	285,350	1,307,250	66,500
Since Sept. 1	6,322,850	5,961,250	742,000

Oiticica—Business was reported spotty. Prices were unchanged. Tankcars were maintained at 16½c. per pound, New York, prompt delivery, with light trading thereat. Drums were held at 18c. to 18½c., spot as to quantity.

Olive—Business was reported spotty, both for shipment and on the spot. Tunisian oil was unchanged at $58 to $59 per 100 kilos, drums, c. and f. New York for prompt shipment while offers from Greece were nil due to the short new oil crop. Spanish oil ranged from $60 to $62 per 100 kilo drums, f.o.b. port, subject to obtaining export license. The spot market was unchanged, ranging from $2.50 to $2.60 per gallon, drums, duty paid, according to quality and quantity.

Palm—Trading was restricted to small drum lots for actual needs. Drums were unchanged at 14c. to 15c. per pound, spot as to quantity. Tankcars were available 11½c., New York, nearby delivery.

Peanut — Crude oil was steadier with trading at 15¾c. and 16c. per pound tankcars f.o.b. mills. Refined was offered at 19½c. per pound, tankcars, New York basis.

Rapeseed—New crop oil was lower and quoted at 15c. per pound, tankcars, New York, prompt delivery. Drums ranged from 16½c. to 17c. per pound, depending upon quantity.

Soybean—Active trading boosted crude sharply for nearby oil, with sales up to 10⅝c. per pound, tankcars, Decatur, unrestricted but the advance was not sus-

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Oils, Fats and Waxes

tained when demand slackened. Tankcars at the close were quoted at 10¼c., October; 10⅛c., November and 9⅞c., December, same basis. Refined salad was quiet and unchanged at 12¾c. per pound, tankcars, New York, prompt delivery.

Soybeans crop as of October 1 was indicated at 572,586,000 bushels by the Department of Agriculture against 560,776,000 bushels, September 1 and 1957 production of 479,841,000 bushels. The ten-year average was 296,294,000 bushels. Yield per acre October 1 was indicated at 24.5 bushels against 23.1 bushels last year.

Tung—Nearby delivery was held at 21c. per pound, tankcars, New York, while late November forward shipment was quoted at 20¾c., same basis. Trading was light and spotty. Drums were maintained at 22½c. to 23c., spot as to quantity.

Miscellaneous

Cocoa Butter—Trend of prices continued downward last week. Carlots were quoted at 88c. per pound, spot and lesser quantities up to 93c.

Copra—Offers for shipment continued light, with trading reported at $203 per ton, c.i.f. Pacific coast.

Fats and Greases

Greases—This market remained firm and prices were lifted slightly for all grades. Yellow was sold at 7¼c. per pound, tankcars, delivered, and 7⅜c. asked. Choice white was stronger with cash lard and raised to 8⅜c. to 8½c., same basis.

Lard—Firmer tone prevailed and market advanced fractionally. Cash lard was lifted to 12¾c. per pound, drums, Chicago. Trading was more active.

Tallow—Increased demand and scarcity of offers further stiffened this market last week. Quotations advanced fractionally. Bleached fancy was purchased by soapers at 8⅛c. per pound, tankcars, delivered. Prime also was higher at 7⅞c.; special, 7⅝c. and No. 1, 7¼c., same basis. Edible

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Oils, Fats and Waxes

tallow was steady, ranging from 10¾c. to 11c., same basis. Export business was reported light. Guaranteed fancy was steady at 9⅜c. per pound, drums, f.a.s. and 8⅝c., bulk.

Fish Oils

Cod—Trading was still spotty, but a steadier tone prevailed for shipment. Prompt shipment was held at 8⅜c. per pound, drums, exdock, with moderate trading reported thereat. Spot stocks were light and maintained at 9⅜c. to 9½c., exwarehouse, as to quantity.

Menhaden—Steady tone prevailed in this market, despite slow buying interest. Stocks of crude were reported light and closely held at 7½c. per pound, tankcars, f.o.b. works. Fishing operations have been practically shut down for the season. Light pressed refined oil was in moderate demand for nearby requirements. Tankcars were maintained at 10½c. per pound, New York basis.

Cake and Meal

Cottonseed Meal—Sales for shipments out of the production area were still slow. Some mills are buying in areas where local crops are not expected to be large enough to take care of normal local trade. Meal, 41 percent ranged from $53.50 to $55 per ton, sacked, according to quantity; $59 Ala.; $64 Ga.; $63 and South Carolina mills for Oct.-shipment.

Linseed Meal—Market quiet. Prices unchanged and fairly steady.

Minneapolis.—Sales were slower in this market, trade generally holding purchases to nearby requirements when contracts were exhausted. Prices steady and unchanged. Occasional re-sale offerings were available at 50c. under crusher quotes. Shipping directions were heavy, schedules well filled for current week. Extracted meal, 34 percent offered at $50 a ton, bulk, a carlots, f.o.b., Minneapolis for October delivery and $51, November-December. Old process meal, 32 percent, at $57 a ton for October-December.

Shipments of linseed meal, in pounds, were as follows:

	1958-59	1957-58
Past week	16,020,000	10,080,000
Since Sept. 1	78,500,000	77,760,000

Soybean Meal—Sharp price declines featured this market, accompanied by narrowing in differential between spot and deferred deliveries. Vigorous sales efforts resulted in fair bookings of November-March meal, especially in the West. Eastern demand was later in picking up. Principal market factor, of course, was full capacity production on new crop soybeans. Firmer undertone developed late on weakness in oil and rain in the soybean harvest belt. Spot soybean meal toppied $5 a ton, while deferred deliveries were down $3.50 to $5. Meal, 44 percent ranged from $54 to $54.50 a ton, unrestricted, bulk, Decatur, for immediate delivery; $53 for first half October; $51, last half and $49 to $49.50, November-December.

Waxes, Vegetable

While trading in vegetable waxes was restricted to actual needs, the spot market remained steady at unchanged quotations. Carnauba grades on spot were not heavy and were closely held, with sellers showing less disposition to shade quotations. The Brazilian market continued firm and light offers for shipment were well held. No. 3 Ceara ranged from 70c. to 72c. per pound and Parnahyba, 71c. to 73c., spot, according to quantity.

Oils and Fats Derivatives: August

Following statistics are compiled by the Bureau of Census covering oils and fats derivatives production, consumption and factory and warehouse stocks in August and July, 1958 (in thousands of pounds).

	Production August 1958	Production July 1958	Consumption August 1958	Stocks Aug. 31, 1958
Chemically dehydrated castor oil[1]	1,372	1,367	NA	2,144
Deodorized oil[2]	85,676	92,027	14,425	15,511
Fatty acids:[3]				
Coconut-type fatty acids including coconut, babassu, and palm kernel; and such fractionated fatty acids as lauric, caprylic, capric, and myristic	5,235	4,272	NA	7,534
Fish and marine mammal fatty acids	[4]	[4]	NA	672
Tall oil fatty acids (containing 90% or more free fatty acid, excluding rosin acids)	10,157	7,194	NA	11,386
Oleic acid, including white oleic and red oil	5,870	2,022	NA	10,868
Stearic acid (40-50% stearic content)	5,871	2,631	NA	4,294
Other stearic acids (over 50% stearic content), high palmitic (over 60% palmitic), hydrogenated animal and vegetable fatty acids	9,303	6,293	NA	7,739
Unsaturated unhydrogenated animal fatty acids (other than oleic)	7,273	5,505	NA	14,734
Unsaturated unhydrogenated vegetable fatty acids	4,659	3,153	NA	9,644
Glycerin, crude (100% basis)[4]	18,112	13,809	18,129	15,426
Glycerin, refined, all grades (100% basis)[4]	17,902	15,331	16,317	43,067
Grease oil, lard oil, and tallow oil[1]	5,287	3,761	NA	7,133
Hydrogenated Cottonseed	22,748	21,433	22,459	10,222
Soybean	153,695	118,194	116,581	46,479
Other	6,595	5,836	5,673	3,061
Inedible	237	[4]	1,111	1,396
Margarine[5]	[5]119,020	[5]120,884	NA	30,752
Mono-and di-glycerides, edible	7,830	6,491	3,580	4,055
Oleo oil and stearin, animal, edible	3,742	3,044	859	2,170
Shortening[1]	168,755	151,599	NA	115,321
Stearin, animal, inedible[1]	1,007	847	NA	393
Stearin, vegetable oil winter	11,381	10,082	9,889	18,368
Tall oil, crude	53,840	46,589	50,976	98,292
Tall oil, refined (containing less than 90% free fatty acids excluding rosin acids)	11,219	10,205	5,561	16,909
Wintertized oil	55,258	51,212	38,089	34,411

NA Not available.
[1] Data for stocks exclude quantities held by consuming factories.
[2] Winterized-deodorized oil, hydrogenated-deodorized oil, and cooking and salad oil not included.
[3] Not shown to avoid disclosure of figures for individual companies.
[4] Includes data for synthetic glycerin.
[5] The quantities, in thousands of pounds, packaged are as follows:

	August 1958	July 1958
Margarine 1 pound units	108,223	112,461

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LEAD LINED TANKS: 1—15' x 20'; 1—15' x 12'; 2—12' x 14' agitated; 1—12' x 12'; 2—10' x 8'; 1—8' x 12'; 1—8' x 10' agitated; 2—8' x 7' agitated.

STEEL TANKS: 1—24' x 15'; 3—20' x 20'; 1—13' x 12'; 1—11' x 20'; 1—10' x 10'; 1—10' x 9' agitated; 4—8' x 30'; 2—8' x 12'; 1—8' x 8' agitated; 1—8' x 8'; 1—8' x 6'.

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1—Hardinge 4½' x 24" Conical Ball Mill.
2—Abbe 5' x 6', 4' x 5', silex lined Pebble Mills.
5—Jeffrey Hammer Mills; 20" x 12", 15" x 8", motor driven.
3—Mikro Pulverizers; 4TH, 3TH and 2TH.
1—FitzMill model D, 304 S.S., 7½ HP motor.
2—Kent, Ross, 6" x 14" Three Roll Mills.

MISCELLANEOUS

3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
3—25 ton Freon Refrigeration Units.
4—Rotex Sifters; 40" x 84", 60" x 84", Double Deck.
3—Robinson Gyratory Sifters, 30" x 104", Triple Deck.
8—Stokes DD2, B2, "R", and "F" Tablet Presses.
10—Nash Vacuum Pumps; H6, L5, L3, TS7, #2, MD572.
25—Chlorimet, Durimet and Duriron Centrifugal Pumps, 1½" to 6".

Partial List of Values — Send for News Flash!

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BRILL EQUIPMENT COMPANY
2401 Third Ave., New York 51, N.Y. Tel. CYpress 2-5703

LIQUIDATIONS

PENICILLIN PLANT EQUIPMENT

4—SS fermenters, 750 gal., ASME 30# int. & jkt., 10 HP XP agit.
2—SS fermenters, 125 gal., ASME 30# int. & jkt., 2 HP XP agit.
5—Pfaudler glass lined reactors; 30, 100, 300 gal., jkt. & agit., ASME.
1—T316 SS rotary vac. filter, 18" dia. x 12" face, Eimco.

RAYON PLANT at OLD HICKORY (NASHVILLE) TENN.

24—200 gal. Baker Perkins jkt. sigma-blade mixers, #17-VII.
12—30" Sperry P.&F. filter presses, C.I., 17 chambers, closed delivery.
2—30" Sperry "Ni-Resist" P. & F. filter presses.
50—Viking pumps.
50—Lead valves up to 12" dia.
2—Nash H-5 Vacuum pumps.

ALSO — Steel tanks, pumps, motors, transformers, piping, etc.

SEND FOR COMPLETE LISTS

EQUIPMENT IN STOCK

CENTRIFUGALS, BASKET
48" suspended, T304 SS, A.T.&M.
40" suspended, steel, Bird.
36" centerslung, bronze, Tolhurst.
30" suspended T304 SS, Fletcher.
12" underdriven, T316 SS, Fletcher.

DRYERS, DOUBLE DRUM
42" x 120" Buflovak—atm.
42" x 90" Buflovak—atm.
36" x 84" American—VACUUM.
32" x 72" Buflovak—atm.
22" x 38" Witteman—atm.

DRYERS, VACUUM SHELF
356 sq. ft. Devine, Steel.
108 sq. ft. Andersen, T316 SS.
80 sq. ft. Devine, UNUSED.
36, 24, 12 sq. ft. Stokes, steel.

FILTERS, PRESSURE
510 sq. ft., vert., Niagara #510-28, T316 SS.
151 sq. ft., Sparkler #33-S-28, T304 SS leaves.
130 sq. ft., horiz., Hercules #12,
110 sq. ft., horiz., Niagara #36H-110-3, T304 SS, 1954.
80 sq. ft. Niagara, T304 SS, Jktd.
45 sq. ft., Niagara #45-30, SS.
Sweetland filters, #12, 7.

MILLS, BALL — PEBBLE — ROD
4'6" x 16" Hardinge conical ball mill, 25 HP, bolted liners.
7' x 15' Rod Mill, Marcy, 300 HP.
5' x 10' Rod, Kennedy.
5'6" x 22' ball-tube, Allis-Chalmers, 150 HP.
6' x 16' ball-tube, Allis-Chalmers.
6' x 4'6" Marcy #64½, 125 HP.
4'6" x 12' contin., Patterson.
8' x 10' pebble, batch, Patterson.
6' x 8' pebble, contin., Patterson.
6' x 8' pebble, batch, Patterson.
6' x 5' pebble, batch, H. K. Porter.
5' x 6' pebble, batch, Abbe.
3'6" x 4' pebble, batch, JACKETED.

DISTILLATION COLUMNS
6—COPPER BUBBLE CAP: 48" dia. x 20 plate; 42" dia. x 40' plate; 42" dia. x 20 plate; 24" dia. x 11 plate.
4—COPPER TUNNEL CAP: 36" dia. x 59 plate; 36" dia. x 39 plate; 36" dia. x 27 plate; 24" dia. x 30 plate.

CRUSHERS
Gyratory, Kennedy, #49S, 100 HP.
Gyratory, Kennedy, #14, 75 HP.
Double-roll, 24" x 24", 20 HP.
Sawtooth, Robinson #13, 15 HP.
Jaw, 8" x 10", Sturtevant.
Jaw, 18" x 9", Mitchell, 25 HP.

ROTARY DRYERS (KILNS)
8' x 115' kiln, brick-lined.
#502-20 Roto-Louvre
7' x 120' kilns, brick-lined.
8' x 70' Dbl. shell, Hardinge, #XA-18, (indirect-direct).
6' x 50' steam tube, Louisville.
6' x 30' steam tube, Louisville.
5'6" x 50' Renneberg.
4'8" x 33', ⅜" shell.
4'6" x 40' Ruggles-Coles, 5/16".
4'6" x 32' steel shell, ⅜".
4' x 30' Dbl. shell, Tylor-Harmor.
4' x 24' brick-lined (kiln).
4' x 12'6" Sturtevant, SS.
3' x 15', Everdur metal shell.
Link-Belt "Mono-tube" dryer, 10' long.
#604-24 Roto-Louvres, T316 SS.
#310-20 Roto-Louvre, steel.

MIXERS, DOUBLE ARM
200 gal. Baker Perkins #17-VII sigma blade, Jktd.
Baker-Perkins #K-300 "Ko-Kneaders," 60 HP.
100 gal. Baker Perkins #15-USE, disp. blade, SS, Jkt., vacuum.
100 gal. Baker Perkins #15-VUMM, Jkt., 100 HP.
100 gal. Baker Perkins #15-JYUE, sigma blades, Jkt.
35 gal. J. H. Day, sigma blades.

MILLS, PULVERIZERS
Hammermill, 400 HP, 47" x 60", Penna. Crusher #5060, 1952, non-clog, UNUSED.
Hammermill, 60 HP, Penna. Crusher, #C-3-30.
Pulverizer, 75 HP, Babcock & Wilcox, #E-32.
Hammermill, 50 HP, Jeffrey.
Roller mill, 66" Raymond low-side, 6 roll, 200 HP.
Roller, Raymond, #5057, hi-side.
Gyratory crusher, Kennedy #49S.

120,000 SQUARE FEET OF EQUIPMENT IN STOCK AT

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1407 N. SIXTH ST., PHILADELPHIA 22, PA.
Phone: POplar 3-3505

FILTERS—48" x 12" Eimco, 3' x 4' Oliver Rot. Vac. w/accessories, 6" square lead Filter Press w/pump.

KETTLES—150 Gal. Jack., 500 Gal. Pfaudler galss, jack.

SCREENS—24" Riddles, 20" x 84" Rotex 3 deck, 40" x 84" Roball 2 deck, 3 x 5, 3 x 10, 4 x 10 Tyler Hummer.

MILLS—Pebble—Lab sizes, 30 x 24, 30 x 42, 3' x 4', 6' x 5' porc. lined, 6' x 8' Buhrstone lined, 4½' x 16" Hardinge Conical.

CRUSHERS—2¼ x 3 Braun Lab., 9 x 16 Climax, OO Sturtevant Rotary (3HP).

MILLS — Hammer — Raymond Lab (1 HP), Williams AKB (25 HP), 3W Mikro (30 HP), NF Williams (50/100 HP).

FORK LIFT TRUCKS—2000# Hyster 12' lift, Yale & Towne 6000# w/all weather cab, fluid drive, both pneumatics.

ROTARY DRYERS—24" x 22', 36" x 24', 44" x 25'. Parts available to 9' dia. Dryers built to your specifications.

PUMP—Blackmer 4" (25 HP) unused, Viking 4" (15 HP), Wilfley 4" Acid (centrifugal).

FEEDERS—Vibrating Syntron F11 8" x 16", F21 (8" tube), F22 (12" tube), F33 (18" x 48").

LAWLER COMPANY
LAWLER PLACE METUCHEN, N. J.
LIBERTY 9-0245

EQUIPONOMICS

HOMOGENIZER — Manton Gaulin, S.S. Model 500E, 500 GPH, 5000 PSI.
OLIVER VACUUM FILTERS—S.S. 316, 3' x 6' Complete, (1954).
MICROPULVERIZER—1 SH Stainless.
EVAPORATORS—Single effect—All Monel 290 sq. ft. 150 sq. ft. Complete.
CENTRIFUGES—Tolhurst 26" Monel; 40" S.S. Susp; 40" Rubber Covered.
FILTER PRESSES—Shriver 36" x 36"—34-1½" Rubber Covered Frames.
PFAUDLER—G L Kettles 75, 200, 300, 600 gal.
HARDINGE Conical Ball Mills, 4½' x 16".
MIXER, DAY—2½ gal. D.A. Sigma, Jack., Vacuum, 5 H.P.

PROCESS PLANTS SERVICE, INC.
287 Central Ave., Clark, N. J. • Tel. FUlton 1-1103-4

ECH SPECIALS

BP 100 gal. Sigma Arms Jktd. Mixer.
Pfaudler 1500 gal. Glass Tank, closed top.
Patterson ¾ gal. SS Jktd. Lab Mixer, 2 HP.
Gen. Amer. 42" x 120" Twin Drum Dryer.
Fitz Mill, all S.S. model "D", 5 HP.
Link Belt S.S Rotary Dryer, 5 ft. x 20 ft.
Gruendler "BB" Whirlbeater Hammer Mill.
Nash Hytor Vac. Pump #6, 40 HP motor.
Blaw Knox 316 S.S 4'x5' Flaker, LIKE NEW.
Day 40 gallon Pony Mixer with motor.

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1-Heat Exchanger, S.S. 144 sq ft
1-Mill Sturtevant Mod 1½ Ring Roll
1-Dryer, 8'x50' Rotary, ½" shell
1-Dryer, Louisville 41" x 15' S.S.
3-Disintegrators, Rietz RDH-18, S.S.
1-Filter, 8 x 10 Oliver rot. Precoat
1-Raymond 5 Roll Mill, cyclones etc
2-Mixers, L-Belt Rib. 42 x 44 x 91" L
1-Mixer, J. H. Day 20 gal dbl sig arm
1-Filter, Mod 510-28 21 S.S. lvs
1-Reactor, Braun 850 gal nick. lined
1-Reactor, 500 Gal gl lined Pfaudler
1-Dryer, Pr Schwarts Cab. type 700 cu ft

For any item you need, wire or phone collect GA 1-1380

ME MACHINERY AND EQUIPMENT COMPANY
123 Townsend St., San Francisco 7, California

1—Patterson Jaketed Buhrstone Lined Pebble Mill, capacity 57 cu. ft., with motor.
1—Sparkler Stainless Filter Model 33-S-9.
2—Sperry 30" Filters, sind. del., 39-pl. 48 fr.
1—Sperry Filter 42", open del., 40-plates, 41-frames.
3—Baker Perkins Mixers, jacketed, heavy duty, sigma blade, 300 gal. with hydraulic dumpers.
1—#10 Day 300 gal. Jacketed Sigma Blade Mixer.
1—International Pebble Mill, porcelain lined, 48" dia. x 60" face, direct motor drive—like new.
1—Day "00" Pony Mixer with ½ H.P. Motor.
1—Stainless Tank #430 Chrome, vert. 7' x 10' deep.
1—New Glass Nash Centrifugal Pump 160 gpm.
1—New Nash Vacuum Pump, Type AL-572.
1—Buflovak Jacketed Impregnating Tank 42" x 52".
1—Stedman Disintegrator size 40-6.

FOR SALE

1—250 gal. Jacketed Nickel Kettle 100# w.p.
1—Nash Air Compressor, Type AL-625.
1—Manton Gaulin Stainless Homogenizer 125 gph.
4—Heat Exchangers, 12" dia. 11' lg., 43 steel tubes.
1—Louisville Steam Tube Dryer 6' x 35'.
1—#316 Stainless Reactor, 265 gals. cap., jacketed.
Abbe Pebble & Tube Mill 5' x 22'—Buhrstone Lined.
2—Patterson Ball Mills, porcelain lined, 17" x 27"
1—Robinson Ribbon Blender & Sifter 125 cu. ft.
1—Ribbon Blender 100 cu. ft.
3—J. H. Day Ribbon Blenders & Sifters, 600#.
2—Ball & Jewell #2 Cutters with 75 H.P. motors.
1—J. H. Day 3-roll Mill 10 x 16.
3—3000 gal. Jacketed Kettles with Turbo Agitators.
4—New Heat Exc. 60' with Cupro Nickel Tubes.
3—4' x 8' Shaker Screens—1 & 2 Deck.

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604x24 Stainless Roto-Louvre Dryer.
705-24 & 502-16 Roto-Louvre Dryers.
8'8"x70' Ruggles Cole Dryer.
7'x120' Rotary Kiln.
6'x50', Rotary Steam Tube Dryers.
32"x100" Double Drum Dryer.
Jeffrey Hammermills 36"x24", 24"x18", 20"x12", 15"x8".
25' to 90' Centers Bucket Elevators.
40" Tolhurst S.S. Susp, Cent. m.d.
40" Fletcher Steel Susp. Cent. m.d.
30" Fletcher Stainless Susp. Cent. m.d.

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750 gal. jktd. Steel Reactor 300 PSI.
50 gal. jktd. Stainless Reactor 50 PSI.
24" Shriver Filter Press 36 New Wood P&F.
48" Stainless Model 2 Ind. Filter.
5'3"x6' Rubber Oliver Precoat Filter.
Sweetland #10 Filter 36 Stainless Leaves.
#6669 Raymond 6 Roll Hi Side Roller Mill.
#5057 Raymond 5 Roll Hi Side Roller Mills.
2TH-3TH-4TH Micro Pulverizers.
5750 gal. All Stainless Tank.
500 gal. Stainless Clad Tanks.
Komarek Greaves Briquette Presses 27"x23" and 20"x9".

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Raymond 2 stage Flash Drying System:—
1—#48 Raymond Imp. Mill-30 HP. & drive.
1—First Stage Cyclone with Accessory duct work.
1,000,000 B T U flash hour gas fired furnace with Maxon pre-mix burner and Bristol pyrotol combustion safeguards.
3—Second Stage prane series 84, Type E Heaters.
1—Dracco type S, 3 compartment dust collector with 75 spun Nylon bags plus 150 space bags & Kidde type A.F.C.O$_2$ Extinguishing Systems.
1—two pen Bristol recording thermometer.
1—two pen Bristol controller w/proportional positioner.
1—Raymond #7-14 Second stage Blower 5 HP.
1—Raymond #12-24 Dust Collector exhaust blower.

ALSO

1—Rotex Screen 40" x 84" w/drive & 1½ HP. motor.
1—St. Regis 100 P. S., Valve type bag packer.
1—Type W size 16 Rotecione Dust Collector.
2—Tolhurst 40" Sus. Style Centrifugals—Steel perforated baskets 10/5 HP. 1200/600 rpm.
1—Tolhurst as above 32" perf. Basket.
2—6" Screw feeders with drives & motors.
1—Gruendler Hammermill w/10 HP. Drive & single screw feed w/½ HP. motor.
1—Ind. 18" x 18" Wd. Pl. & fr. Filter Press.
1—Stainless Tank 150 gal. w/agitator.
1—Raymond Laboratory Pulv. Single screw.
3—Centrifugal Pumps 1½" and 2". Misc. Piping valves etc.

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Pony Mixer: Troy 40 gal. 2-speed.
Bartelt Packaging Machines (2).
Standard-Knapp 429 carton Gluer/Sealer.
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Mills: Fitzpatrick model D, st. st., jktd.
Crystallizers: 500 gal. stain. jack., agit.
Dryer: Porter 2 x 4' vac. drum, st. st.
Centrifugal: Tolhurst 26" rubber, 2-speed.
Mix-Mullers: Simpson Lab., Porto, #00.
3-roll Mill: Day 12x32" hi-speed, 2-speed.

Write us or call Seeley 8-1431.
Send us a list of your idle machines.

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1—Shriver solid rubber 24" filter press.
4—Rotex sifters 40" x 120", 40" x 84", 40" x 120," 20" x 48", single and double deck.
1—Selectro 2' x 7' single deck stainless sifter.
2—250 gallon Pfaudler glass lined jacketed kettles.
8—1,200 gallon, 3,300 gallon, 5,500 gallon, 7,000 gallon stainless steel tanks.
2—Mikro atomizers #5 and #6, stainless.
1—Stripper column 24" dia. x 18' high, stainless.
6—75 gallon Day jacketed Imperial double arm mixers.
3—Simpson 18", 24" and 36" mixers.
5—80 gallon stainless agitated jacketed autoclaves.
3—Rubber lined Sparkler filters model 32-S-17—92 sq. ft.
5—Ribbon blenders 6 cu. ft., 30 cu. ft., 48 cu. ft. and 200 cu. ft. capacity.
2—20 gallon and 50 gallon jacketed agitated Pfaudler glass lined reactors.
1—1½' x 16' Hersey rotary dryers.
1—Ruggles Coles 4' x 20' direct fired rotary dryer.
2—Stainless ribbon blenders 7 and 33 cu. ft.

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DRYERS—Allright Nell 4' x 9' Atmos. Drum Dryer.
Buffalo Vac. Drum Dryer 24" x 20".
Vac. Shelf & Rotary Dryers.
FILLERS—Powder & Liquid. Also Labelers.
FILTERS—Vallez type 49, with 41 Stainless covered leaves.
#2 Sweetland 12 Stainless covered leaves.
Ertel 6" & 10" Disc type.
FILTER PRESSES—4" to 36" Iron & Wood.
KETTLES—Stainless Jack. 80, 60, 50 gal.
Dopp 350 gal. Cast Iron Jack. Vacuum.
Devine Impreg. Units 30" & 36" dia.
Lead Lined Kettle 250 gal.
Steel, Alum. & Copper 5 to 2,000 gals.
MILLS—Raymond #00 Pulverizer 30 HP complete. Also #0000.
Mikro Pulverizer #4, 2S1, 2TH, 1SH, Bantam.
Hammer Mills & Pulverizers 3 to 50 HP.
Williams #BB, #3 & #2XX Hammer Mills.
Ball & Jewell Rotary Cutters Lab. to 50 HP.
Pebble, Jar & Ball Mills, Lab. to 6' x 9'.
Steel 3 Roll 9" x 32", 12" x 30" & 16" x 40".
Lehmann 4 Roll W. C. 12" x 36" Steel Colloid Mills Stainless Steel 5 & 1½ HP.
MIXERS—Baker Perkins 100 gal. Jack.
Day Imperial 75 & 150 gals. Jacketed.
Day Pony Mixers 8, 15, & 40 gals.
Day Jumbo 700 gal. horiz. Mixer.
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Dry Spiral Mixers 50 to 3000#.
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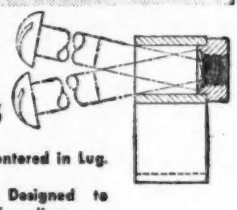

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Weld Nut Rings are the greatest time-savers in drum closures. The rings are quickly put in position with a Drum Parts Closing Tool. The bolt instantly threads into the nut—it couldn't do otherwise (Note the tapered hole construction of the nut.) The bolt can be driven home by hand or a power tool. The result—a quick, easy, safe closure. Furthermore the welded nut prevents lug distortion—still greater safety.

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1—Swenson type 316 SS vacuum crystallizer 3'6" x 12', complete.

1—Swenson type 316 SS vacuum crystallizer 2'6" x 12', complete.

5—Badger type 316 SS heat exchangers, 569 sq. ft., 467, 330, 170 sq. ft.

1—Merco type 316 SS centrifuge, Model B9.

3—Tolhurst center slung rubber lined centrifuges, 48" and 40".

1—Baker Perkins type 316 SS Ter Meer Centrifuge, Model HS-24".

1—Louisville SS rotary dryer, 30" x 28'.

1—Stokes SS rotary vacuum dryer, 3' x 15'.

2—Louisville steam tube dryers 6' x 50'.

1—Louisville steam tube dryer, 8' x 45'.

2—Stokes vacuum shelf dryers, 4 shelves.

1—Stokes SS rotary vacuum dryer, 2' x 6'.

1—Oliver horizontal filter 6'6".

1—Stokes double drum dryer, 5' x 12'.

1—Oliver horizontal 3' pilot plant filter.

1—Sweetland #3 filter, 70 sq. ft.

10—Sweetland #12 filters with 72 SS leaves.

1—Shriver SS 18" x 18" plate and frame filter press, 8 chambers.

1—Niagara SS filter, Model 510-28.

1—Feinc SS rotary vacuum string filter 3' x 3' (NEW).

1—Lee SS jacketed kettle, 125 gal.

1—Theo. Walters SS jacketed reactor, 500 gal.

1—Acme type 316 SS jacketed kettle, 2,000 gal.

1—Nickel jacketed kettle, 1,000 gal.

1—Pfaudler Series P, 20 gal. jacketed reactor.

1—Patterson steel jacketed 3,000 gal. mixing kettle.

3—Howes 40 cu. ft. rubber lined ribbon blenders.

1—Leader SS jacketed ribbon blender, 51 cu. ft.

1—Simpson 18" muller.

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EQUIPMENT OFFERED

For Sale: Three 220 cu. ft. (1,650 gal.) Sprout-Waldron heavy duty steel double Ribbon Blenders; 600 gal. stainless Paste Kettle, 15# Jkt. 20 H.P. XP varidrive Motor and heavy duty Agitator; 275 gal. stainless Paste Kettle, 25# Jkt. 10 H.P. XP varidrive motor and heavy duty double acting Agitator; 150 Sq. Ft. stainless Heat Exchanger; 42" x 90", 32" x 100", 32" x 72" double drum Dryers; 3000 gal. stainless Vacuum Tank with coil. Best Equipment Company, 1737 W. Howard St., Chicago 26, Illinois. AMbassador 2-1452.

MATERIALS OFFERED

Sodium Lactate (pharm. quality) and other Lactates on specifications, 1 lb. to a ton; write for quotations. Marvin R. Thompson, Inc., Chem. Div., Stamford, Conn.

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MATERIALS OFFERED

For Sale: 5,000 lbs. USP Barium Hydroxide 12c/lb.; 1,000 lbs. Monsanto Diphenyl Phthalate 22c/lb.; 3 drs. Polyglycol Monostearate 1000 25c/lb. Also, 200 lbs. Advance Stabilizer 3, 100 lbs. Advance Stabilizer 42, 300 lbs. C-2 Stabilizer, 500 lbs. Reilly Tar Anthracine, below market. OPD 635.

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Monthly Special: Ketone Solvent Mix Bulk at 50c/gal. Drums slightly higher. Industrial By-Products & Surplus Co., 40-40 Lawrence St., Flushing, N. Y., INdependence 1-4100.

POSITIONS OFFERED

Production Supervisor — Pharmaceutical man with experience in manufacture of tablets, formulating and coating. Also supervise packaging, shipping, inventory and production control. Write stating qualifications and experience. OPD 636.

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Sales Branch supervisor—Career Opening—St. Louis Branch Office—Small, aggressive, well-established national company. Chemicals and pharmaceuticals. Applicant must be able to organize and manage field sales engineers (10) and handle executive sales. Technical background required. Write giving complete personal data. OPD 633.

Chemist-Salesman for small manufacturer of fine chemicals and pharmaceuticals. High salary plus benefits for able ambitious man who expects to attain a responsible managerial position. Please submit confidential resume to OPD 626.

MACHINECRAFT

Stokes 3 DDS2, 1-T, 1-RD3, 2-B.
Baker Perkins 100 gal. S.S. double arm 50 HP jacketed, vacuum, hyd tilt.
Blaw Knox 2 gal. S.S. Autoclave 5000 lb.
50 gal. S.S. Autoclave 2000-lb. press.
Vulcanizer 60 in. x 9 ft. 125 lbs.
Oliver S.S. Pressure Filter.
Sweetland #2 all Stainless.
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Pyrethrum Market Is Growing Larger

—Continued from page 3

there are often particularly annoying insect problems."

"Drosphila infestations around canning plants and in field harvesting containers can readily, effectively and economically be controlled by pyrethrum at no hazard, either to users or produce consumers.

"The control of these insects is mandatory if insect fragment tolerances are not to be exceeded and pyrethrum is the perfect answer."

"In terms of the long history of pyrethrum, aerosols are of course a new use, or more accurately, a new way of use and now account for a large portion of the pyrethrum imported into the United States. Repellents are becoming more important in the field of insect control although their development has only recently begun."

Mr. Clark was then asked if he would outline the end-use pattern. His answer was:

"The main end-use pattern for pyrethrum will show the major distribution to be in household aerosols, household and garden sprays, and dairy cattle sprays. Included in the second category are the amounts used in professional pest control work.

"With the exception of home gardens, rather small quantities are used in specific agricultural areas and for the control of insects in various warehouses and manufacturing plants for stored food products."

Pyrethrum and Other Materials

The final question was: "Is pyrethrum gaining on other insecticides and, if so, why?"

Here is Mr. Clark's answer:

"Pyrethrum cannot be said to be gaining on other insecticides so much as finding the certain areas where it will work to advantage. By this I mean such places where the other materials are not used for a variety of reasons, e.g., because they are not effective or economic or convenient or because they may not be legally used.

"The continuing interpretation and promulgation of regulations under the Miller bill have served to limit the areas of usefulness of other insecticides and this often opens the door to another use of pyrethrum. Strictly speaking, these are not new uses but ones which have been discontinued before the limitations of some of the competing items had been thoroughly understood."

Statement of the ownership management, circulation, etc., required by the Acts of Congress of August 24, 1912, and March 3, 1933, and July 2, 1946, of Oil, Paint and Drug Reporter, published weekly except semi-weekly the last week in February and the last week in August at New York, N. Y., for October 1, 1958.

The names and addresses of the publisher, editor, managing editor, and business manager are:—Publisher, Schnell Publishing Company, Inc., 30 Church street, New York, 7; editor, William S. Auchincloss, 30 Church street, New York, 7; managing editor, Arthur R. Kavaler, 30 Church street, New York, 7; business manager, William S. Auchincloss, 30 Church street, New York, 7. That the owner is Schnell Publishing Company, Inc., 30 Church street, New York, 7. Stockholders holding 1 percent or more, James Stuart Auchincloss, Short Hills, N. J., Jean Schnell Auchincloss, Short Hills, N. J. That the known bondholders, mortgagees and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities are:—Not any. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona fide owner.

That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above was 10,716.

(Signed) William S. Auchincloss, Business Manager.

Sworn to and subscribed before me this 17th day of September, 1958.

(Signed) Eleanor H. Buxbaum, Notary Public.

(My commission expires March 30, 1959.)

Olin, Sun Establish

—Continued from page 4

Layton. Mr. Sanderford is from Olin. Messrs. Wilson and Layton are from Sun.

Four directors have been selected from each of the parent companies. Men named from Olin are Donald W. Drummond, John O. Logan, William B. Copeland, and S. S. Johnson. Directors serving from Sun are Clarence H. Thayer, Chalmer G. Kirkbride, James I Harper and Joseph T. Wilson, jr.

Pennsalt Perchlorate

—Continued from page 5

pulp bleaching, agricultural chemicals, and explosives.

The new ammonium perchlorate plant is part of the company's current $55 million expansion and improvement program. Pennsalt has also pioneered in the development of elemental fluorine and other high energy chemicals used in both solid and liquid missile fuels.

Bids Wanted

Ammonia, 60 bots., spirit aromatic, Bid IFB M5-46-59, Oct. 16, Marketing Div. for Drugs & Chemicals, Veterans Administration Supply Depot, Somerville, N. J.

Bromochloromethane, various quantities, 80-lb. cns., spec. MIL-B-4394A, Bid IFB 36-600-59-85, Oct. 22, Directorate Procurement & Production, Middletown Air Material Area, Olmsted AFB, Pa.

Drugs, Digitalis, 15,528 1½-oz. bots., tablets, USP, Bid 217, Oct. 20, diphenylhydantoin sodium, 16,416 100 mg. bots., capsules, USP, Bid 211, Oct. 20, Barium sulfate, 2,820 cns., 10-lb. cns., USP, Bid 213, Oct. 21, Military Medical Supply Agency, 84 Sands St., Brooklyn 1, N. Y. Penicillin G Potassium 31,000 vials, Bid IFB M5-47-59, Oct. 16, Marketing Div. for Drugs & Chemicals, Veterans Administration Supply Depot, Somerville, N. J.

Lithium hydroxide, 2,500 7½-lb. canisters, tech., grade 1, spec. L-20213C, Bid 219-65, Oct. 22, Submarine Supply Office, 19th and Walcot St., Philadelphia 3, Pa.

Nitric acid, 480,000 lbs., fuming, tech., spec. N-7254, Bid 80, Oct. 21, Contracting Officer, Olmsted AFB, Middletown, Pa.

Paint, 1,704 gals., full gloss, white or phenolic enamel, Bid 4-950, Oct. 16, 7,500 gals., non flammable, chlorinated alkyd resin, Bid 4-963, Oct. 16, 4,000 gals., 5 gal. pails, deck interior, dark green enamel, Bid 4-1002, Oct. 17, 4,608 12-oz. cns., camouflage gray, Bid 4-917, Oct. 17, 2,600 gals., 5 gal. pails, oil ext. wood and metal, white, exterior, Bid 4-1004, Oct. 17, 1,172 gals., grey, 1,300 gals. yellow, lacquer, cellulosic derivative, Bid 4-1006, Oct. 20, 7,500 gals., heat resisting paint, RM paint, Bid 4-1053, Oct. 20, 20,000 gals., soft white, alkyd, Bid 4-1037, Oct. 20, 8,000 gals. lacquer, spraying, clear, Bid 4-1032, Oct. 21, 976 gals., lusterless, quick drying, black, Bid 4-1033, Oct. 21, 3,000 gals., heat resistant, aluminum type, Bid 4-1005, Oct. 21, Gen'l. Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Petrolatum, 552 bots., liquid, light, Bid IFB M5-46-59, Oct. 16, Marketing Div. for Drugs & Chemicals, Veterans Administration Supply Depot, Somerville, N. J.

Sodium chloride, 832,641 lbs., tech., type II, Bid IFB, 189-154-59B, Oct. 29, Contracting Officer, Purchasing Depart., Naval Supply Center, Norfolk, Va.

Sodium Carbonate, 936 bots., Bid IFB M5-47-59, Oct. 15, Marketing Div. for Drugs & Chemicals, Veterans Administration Supply Depot, Somerville, N. J.

Sodium disulfite, 240 bots., Bid IFB M5-47-59, Oct. 16, Marketing Div. for Drugs & Chemicals, Veterans Administration Supply Depot, Somerville, N. J.

Sodium lauryl sulfate, 216 bots., Bid IFB M5-47-59, Oct. 16, Marketing Div. for Drugs & Chemicals, Veterans Administration Supply Depot, Somerville, N. J.

Sodium nitrite, 121,824 1-oz. bots., ACS, Bid 199, Oct. 21, Military Medical Supply Agency, 84 Sands St., Brooklyn 1, N. Y.

Botanical History Repeating: OPD's Survey Is Reminiscent of 1948

—Continued from page 7

exceptionally large size. Others made the decrease 60 to 70 percent.

All admitted prices were very low and that when a few price advances had been made to the diggers they were too small and came too late to avert the final result —the smallest crop in years—bought at prices the lowest since 1955.

Not only was the 1958 tonnage extremely small, but the prices paid gatherers were reduced sharply when collection began around March 1. Several factors seemed to cause the small crop of 1958. Dealers said that a substantial carryover from the 1957 crop was still in warehouses. Adverse weather conditions—mainly rain—curbed collection activities and prevented, or seriously delayed, proper drying.

The low prices in force when gathering began blunted the interest of workers. Their ambition was also diluted by payments of unemployment insurance and other government handouts. Furthermore, checks from such sources put a crimp in their old time spirit of independence.

More Jobs Than Workers

In one area, there were more jobs than workers to fill them, which contrasted with widespread unemployment elsewhere. Many dealers said that these facts explained why the 1958 crop was so small. The spectre of the huge crop in 1957 hung over the primary markets and fear of a repetition led dealers to set up low prices early in the year. The few price advances made came so late in the season they did little good.

Opinions of the dealers in the area survey usually differ about crop conditions and their cause. In 1958, however, the unaminity of dealers' opinions and views was amazing. Nothing like such agreement had existed in the past five years.

A group of 118 botanicals, comprised of low, medium, and high priced items which move in large, medium, or very small quantities, were the subject of a special OPD price study, which developed the following data:

	Items	Percent
Advances	7	5.9
Reductions	54	45.8
Unchanged	57	48.3
Total	118	100.0

Price changes on individual items within this group were as follows:

Advanced

	Percent
Deer tongue leaves	50
Passion flower herb	25
Sassafras leaves	40
Stramonium leaves	66
Tansy herb	25
Watercress herb	60
White pine bark, rossed	16

Reduced

	Percent
Aletris root	25
Angelica root, natural	12
Balm of gilead buds, dry	22
moist, green	16
Black cohosh root	42
Black haw, root bark, N.C.	33
nearby states	33
Black haw, tree bark, rossed	40
unrossed	56
Boneset herb	50
leaves and tops	40
Catnip herb	66
leaves and flowers	12
leaves, green only	12
Elm bark, slippery	33
Ginseng root, wild	40
cultivated	23
broken pieces	20
Golden seal root	9
Golden thread herb	33
Helonius root	27
Horse nettle root	50
Jersey tea, root bark	57
Lady's slipper root	25
Lettuce leaves, wild	33
Life root plant	66
Lobelia herb, young	50
past flowering	50
Lobelia leaves	40
Mandrake root	16
Peppermint leaves and tops	16
stemless	14
Pleurisy root	25
Queen of the meadow leaves	58
Sassafras bark, rossed, large pieces	11
rossed, small pieces	28
rossed, medium sized pieces	10
Sassafras bark, natural	10
Shonny haw, root bark	20
Spearmint leaves	28
with tops	16
Spikenard root	52
Squaw vine	50
Tag alder, tree bark	16
Wahoo, root bark	52
tree bark	20
White oak bark	33
Wild cherry bark, thick, rossed	25
all thin, skinless	25
all thin, with skin	37
Wild ginger root	55
Wintergreen leaves	33
Witch hazel bark	33
Yarrow herb	50

Area reports in western North Carolina were informative. Wet weather came early in the season and was constant until August. The mountain and plateau country was so water-soaked that gathering botanicals was all but impossible for the limited number willing to do the work.

Official figures for January through July gave the mountain rainfall at 22 inches. Rain fell 37 percent of the time. Only fifty-six clear days were recorded. It was not strange that mold—brought on by wet, damp, sunless weather—made some collections a total loss to the gatherers.

Unused Storage Space

The smallness of the crop caused the substantial amount of unused storage space to be found in most warehouses at present—in distinct contrast to every inch of space being used a year ago.

From the northernmost part of North Carolina, contiguous with Virginia, came word that the new crop was the smallest in years. Only a few persons collected drugs and a great many former workers discontinued gathering altogether. The lowest prices in many years were set early in the season.

As the spring turned into summer, necessity forced some price advances but the rises had little effect on the aloofness from drug digging. Rain afflicted this area, too, and the wet weather proved a handicap in collecting and drying several items.

For example, purchases of witch hazel leaves and passion flower herb in this area were approximately 50 percent of normal. Sales made early in the season, prior to collection, turned unprofitable when gathering dwindled. To cover future delivery orders, dealers paid workers prices which meant a loss to the collector but did in all probability bring in enough merchandise to cover the short sales.

This area formerly paid workers prices which gave them an income of 75c. to $1 per hour. Today, prices would have to return to the workers about $3 per hour if the number of drug gatherers was to be increased substantially.

OPD learned that collections in the Piedmont and western Virginia areas were also short. Prices opened low and stayed low except for a few specially wanted items. To get those, dealers raised prices but the advances were too small and too late to increase collections.

Had prices opened higher, such levels would have been out of line with the demand dealers expected in 1958. Small sales volume in 1957 had made dealers doubtful of 1958 demand. And the conservative amount of contract tonnage booked during the summer showed that their doubts had been justified.

Amazingly good general business conditions prevailed in western Virginia, a contrast with the nationwide business recession elsewhere. Botanicals dealers in that area said that more people than ever before had found ready employment in business and industry. Shortage of workers was the rule. Industrial labor shortage was reported only in the western Virginia and adjacent North Carolina botanical areas.

Dark for Miners

In eastern Kentucky, where coal mining and botanical drug collection compete for workers, the employment situation was dark and discouraging for miners. Many were out of work—in contrast with the peak coal production in recent years. High employment levels in the coal fields in recent years curbed botanical production. This year, however, out-of-work miners and their families returned to drug gathering as a source of income.

Dealers in the Piedmont, western Virginia, and eastern Kentucky areas were reserved about the sales prospects in 1958-59. They had in mind the fact that sales in 1957-58 had dwindled. In addition, however, to citing 1958 as a small crop year, they also said that anything like a normal demand could not be filled from the present carryover plus the small new crop. The pinch in supply would be greatest in items normally sold only in limited quantities. Collection of such items was almost totally avoided this year.

The worst collection season in many years was reported by western Kentucky dealers. Receipts were off 50 to 75 percent from 1957.

Louisville reported receipts of mandrake root down 50 percent from 1957 totals. Manufacturing consumers gave little support to the market. They refused to bid prices that would have brought a normal crop. And even now the makers of podophyllum resin show no tendency to raise their price ideas. This below-par demand means a subnormal backlog of mandrake stocks.

The ginseng crop was fully 75 percent below the 1957 dig. Recessed demand dropped buying prices by $6 to $8 per pound below the top prices paid a year ago.

St. Louis Sees Big Drop

Merchants in St. Louis, Mo., reported that the crop this year was 60 to 70 percent below 1957 collections. Also, that the low prices posted early in the season revealed that dealers expected a new crop even larger than the big one last year. When collection turned out to be small, dealers tried higher buying prices as a stimulant to lagging production. It failed.

Short sales had been made early in the season in anticipation of a large crop obtained at low cost available to dealers. When collected tonnage shrank below expected totals, these short sales rose to haunt their makers.

Striving to get out from under, dealers upped buying prices. One merchant said he topped competitors' posted prices substantially but accomplished little more than getting an insufficient tonnage at a much higher cost.

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